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Academic Underachievement and Level of Psychological Adjustment: The Importance of Parental Identification and Parental Child-Rearing Attitudes

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Loyola University

ACADEMIC UNDERACHIEVEMENT AND LEVEL OF PSYCHOLOGICAL
ADJUSTMENT: THE IMPORTANCE OF PARENTAL
IDENTIFICATION AND PARENTAL CHILD-
REARING ATTITUDES

A Dissertation
Submitted to the Graduate School
In Partial Fulfillment of the Requirements
For the Degree
Doctor of Philosophy

Department of Psychology

Walter P. Knake, Jr.

Chicago, Illinois

June, 1969

LIFE

Walter P. Knake, Jr. was born in Pittsburgh, Pennsylvania on April 2, 1941. After obtaining an elementary school education at St. Bernard's School in Pittsburgh, he entered the minor seminary for the Roman Catholic priesthood at St. Fidelis Seminary, Herman, Pennsylvania. He remained there for two and one half years and then transferred to St. Justin High School in Pittsburgh wherefrom he obtained his diploma in June, 1959.

The author was graduated with a Bachelor of Science Degree in Social Science from John Carroll University, Cleveland, Ohio in June, 1963. At this time he was also commissioned a Second Lieutenant in the United States Army Reserves.

Since September, 1963 the author has been a graduate student in the Department of Psychology, Loyola University, Chicago, Illinois. In February, 1966 he received a Master of Arts Degree in clinical psychology. Since then he has been studying for a Doctor of Philosophy Degree in clinical psychology.

From September, 1963 until February, 1965 the author served as an assistant in the experimental psychology laboratory under Reverend Vincent V. Herr, S.J. From February, 1965 until October, 1965 he obtained a clinical clerkship at the Loyola University Child Guidance Center under Dr. Thomas Kennedy. He was a Psychologist II trainee on a partial clinical internship

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Introduction

The general purpose of this research project is to examine academic achievement against underachievement on the junior high school level. The psychological adjustment of the students, their identification with their parents, and certain parental attitudes concerning the rearing of children were investigated as to their contributing influence, if any, upon the achievement or underachievement of the students.

There has been an abundance of research, conducted mainly with college populations, which has investigated academic achievement versus underachievement in relation to various personality traits and adjustment. Many personality variables have been found to be reliable in differentiating underachievers from achievers.

Taylor (1964), in his review of the literature relating personality to discrepant achievement, listed seven personality characteristics which consistently have been found to differentiate underachievers from achievers. The underachievers were characterized as possessing: 1) free-floating anxiety, 2) negative self-value, 3) hostility towards authority, 4) negative interpersonal relations, 5) high independence-dependence conflict, 6) low motivation in the academic area combined with high affiliation needs, and 7) unrealistic goal orientations.

Underachievers with high intellectual capacity are thus seen to be poorly adjusted psychologically.

In relation to the personality trait of anxiety, as shown above, authors have found it to be a characteristic of grade school and junior high school bright underachievers (McCandless & Castaneda, 1956; Taylor & Farquhar, 1965). In the study by Taylor and Farquhar male underachievers showed their academic anxiety by being agitated and by actively escaping the academic work while the anxiety was evidenced in the female underachievers by an overactive fantasy involvement and by acting-out behavior.

Perhaps the one personality trait which has been seen in the majority of the reviewed literature discriminating between bright achievers and underachievers is that of self-concept or one's personal feeling of adequacy or inadequacy in daily living. The research on this one variable has been quite consistent in showing that a significant difference in one's self-concept does exist between achievers and underachievers. Underachievers rated themselves as being less adequate than did achievers on all levels of education. At the grade school and junior high school levels significant positive correlations have been found between a low self-concept and underachievement (Bruck & Bodwin, 1962; Combs, 1964; Kurtz & Swenson, 1951; McGuire, 1961; Peppin, 1963).

Shaw, Edison, and Bell (1960) and Shaw and Alves (1963) have studied the self-concept of bright underachieving high school students. While their findings agreed in general with

those results found in the grade school population they were able to further differentiate between male and female achievers and underachievers. The negative self-perceptions of the male underachievers revolved around themselves while the negative self-attitudes of the female underachievers centered on the perceptions of how others felt about them. In general, the underachievers rated themselves more negatively on the variables of: self-concept, self-acceptance, ideal-self, perception of peer self-concept, peer self-acceptance, and peer ideal-self.

Self-concept as it relates to achievement or underachievement has also been studied at the college level (Borislow, 1962; DeSena, 1964; Morgan, 1952; Todd, Terrell, & Frank, 1962). Again low self-concept has been found to be a characteristic of underachievers. Todd, Terrell, and Frank conclude from their findings that ability or potential in academic pursuits is not as vital to the self-concept or self-esteem for the female as it is for the male underachiever. The males seem more concerned about their perceived inadequacies than are the female underachievers. Borislow found that regardless of any motivation for achievement underachievers have a poorer conception of themselves than do achievers. With the addition of the motivation factor their poor self-concept is heightened.

A number of studies have attempted to relate scholastic underachievement with the personality trait of hostility. Significant results have shown that underachieving students are

more hostile towards teachers than are achieving students' (Dowd, 1952; Frankel, 1960). The object of the underachieving students' hostility was also shown to be the father or authority figures in general (Corlis, 1963; Kimball, 1952; Shaw & Brown, 1957; Shaw & Grubb, 1958; Taylor & Farquhar, 1965). Shaw and Grubb, however, stated that the hostility shown to teachers is not a factor of the high school educational framework but rather it is brought with them into high school. Underachievers were characterized by having a significantly higher psychopathic deviate scale on the Minnesota Multiphasic Personality Inventory than achievers (Barger & Hall, 1964; McKenzie, 1964; Morgan, 1952).

Various authors have shown that faulty peer and interpersonal relationships exist in the general personality pattern of the underachieving student throughout the educational levels (Kurtz & Swenson, 1951; McGuire, 1961; Powell & Jourard, 1963; Roberts, 1962; Shaw & Alves, 1963; Taylor & Farquhar, 1965). Further investigations have indicated that the achieving student is more aware of and concerned about his fellowman (Gebhart & Hoyt, 1958; Gough, 1953c; Gowan, 1957; Holland, 1959; Morgan, 1952; Roberts, 1962). The achieving student is interested in and responsive to the needs and feelings of others which aids in the formation of successful interpersonal relationships. A few authors claim, however, that the achieving student is more withdrawn from others (Horrall, 1957; Krug, 1959; Merrill & Murphy, 1959). They feel that the underachieving student is more outgoing and sociable than is the achieving student. However, the

fact that the achieving students may not be as outgoing or as extroverted as the underachievers is not necessarily a factor of poorer interpersonal relations but rather a result of spending more time in scholastic areas and therefore socializing less.

Several investigators have found that achieving students are less dependent on adults for help and emotional support than are underachievers (Crandall, Preston, & Rabson, 1960; DeSena, 1964; Kerns, 1957; Kimball, 1953; McKenzie, 1964; Roberts, 1962; Winterbottom, 1958). The successful students appear to be more autonomous and less involved in dependent conflicts. However, Holland (1959) and Middleton and Guthrie (1959) believe that the achieving student is more dependent because of the gratification received from others upon successful achievement. The student in this case is more interested in the praise of others rather than in the rewards of independent achievement for itself. This characteristic was viewed as being related more to overachievers than to achievers however.

On a number of studies achieving students scored significantly higher than nonachievers in achievement motivation or need for achievement (n Ach) (Borislow, 1962; DeSena, 1964; Frankel, 1960; Gebhart & Hoyt, 1958; Kerns, 1957; Krug, 1959; Lum, 1960; Kurtz & Swenson, 1951; Mitchell, 1959; Morgan, 1952; Roberts, 1962; Taylor & Farquhar, 1965). Underachievers have been found to lack this achievement motivation but in its place have emphasized social interactions, pleasure seeking, and activity interests (Gerberich, 1941; Holland, 1959; Hopkins,

Molleson, & Sarnoff, 1958; Horrall, 1957; Middleton & Guthrie, 1959; Mitchell, 1959). The underachiever is found to have strong affiliation needs in place of achievement needs. The achieving students, in contrast, have low affiliation needs (Gebhart & Hoyt, 1958; Kerns, 1957; Krug, 1959).

Achievers have been characterized as being dependable, consistent, and responsible in relationship to task and goal orientation. They have a basic seriousness of purpose and are able to organize and plan their lives (Diener, 1960; Dowd, 1952; Gebhart & Hoyt, 1958; Gough, 1953c; Gowan, 1957; Holland, 1959; Krug, 1959; Kurtz & Swenson, 1951; Morgan, 1952). Underachievers have been characterized as being restless, changeable, and having no real goals (Dowd, 1952; Kurtz & Swenson, 1951; Lum, 1960; Mitchell, 1959).

Although the majority of research has been conducted with college students, it has been found that poor psychological adjustment is related to underachievement in both the high school and the elementary school levels. Shaw and Grubb (1958) felt that the underachievement syndrome was present before students entered high school. Barrett (1957) found an underachievement pattern present by grade five. Shaw and McCuen (1960) indicated that academic underachievement was characteristic of bright males by the third grade, and in many cases was evident in the first grade. The present study examined the psychological adjustment of achievers versus that of underachievers among bright

seventh and eighth grade school students.

A number of authors have shown that within the general concept of psychological adjustment in relation to academic achievement an adequate sexual identity is necessary (Barwick & Arbuckle, 1962; Cooper, 1962; Crandall, Katkovsky, & Preston, 1960; Crofts, 1959; Gebhart & Hoyt, 1958; Heilbrun, 1963b; Katkovsky, Preston, & Crandall, 1964; Krug, 1959; Longstreth & Rice, 1964; McGuire, 1961; Powell & Jourard, 1963; Shaw & White, 1965; Teahan, 1963; Tibbetts, 1955). The sex identity of the child is a commonly proposed correlate of identification (Mussen, 1961; Mussen & Distler, 1959; 1960; Mussen & Rutherford, 1963; Sears, 1953). For the purposes of this present study the definition of identification suggested by Kagan (1958) was used. He stated that identification is an acquired cognitive response whose content is such that some of the attributes, motives, characteristics and affective states of the model are a part of the subject's psychological organization.

The present study assumes that identification of the child with a parent, as defined by Kagan, could be determined by assessing the agreement, if any, existing between the child's self-perceptions and his perceptions of the parent. In addition, assessment of the parents' self-perceptions in relation to the parents' perceptions of the child or student provides an index of the extent to which they, the parents, believed the child to be like them and indirectly an indication of how positive a psychological relationship they felt existed between their child

and themselves. A third measure or index of identification based on Kagan's definition is assumed to be revealed by a comparison of the child's perceptions of himself in relation to his parents' self-perceptions. A fourth indication of identification is assumed to exist in the number of self-descriptive adjectives rated in common by the students and their parents.

In the various studies of parental identification by Heilbrun (1960b; 1962a; 1962b; 1963b; 1964a; 1964c; 1964d; 1965a; 1965b; 1965c; 1965d) and by Heilbrun and Fromme (1965) and by Heilbrun and Hall (1964) a measure of identification was developed and used in relation to various variables. His Identification Scale (IS) was, as is the case for the present study, based on modeling principles of learning (e.g., Kagan, 1958; Mowrer, 1950; Sears, 1957; Symonds, 1946). While the method employed by Heilbrun and his co-workers has been successful in measuring identification between child and parent, it has only compared a measure of the child's self-perceptions with the child's perceptions of his parents. The present study has gone beyond this index of identification and has assessed the self-perceptions of the parents and their perceptions of their child. In other words, Heilbrun has not involved the parents in his studies, whereas this investigation has attempted to do so. Shaw and White (1965) believe that it is quite important to utilize this approach to identification assessment.

According to Parsons' reciprocal role theory of parental identification (1958) the achievers, both male and female, should

identify with a more masculine, instrumental father (i.e., aggressive, dominant, enduring, autonomous) whereas the under-achievers, both male and female, should identify with a more feminine and expressive mother (i.e., passive, nurturing, succorant, dependent). This pattern of parental identification in relation to the psychological adjustment of students has been found by a number of investigators (Altus, 1948; Cooper, 1962; Crandall, Dewey, Katkovsky, & Preston, 1964; Gebhart & Hoyt, 1958; Goodstein & Heilbrun, 1962; Heilbrun, 1962a, 1963b, 1965a; Heilbrun & Fromme, 1965; Hollenbeck, 1965; Kimball, 1952). The present study attempted to show that this pattern of parental identification exists in junior high school, bright achievers and underachievers. This investigation assumes that this pattern of identification is related to achievement levels.

Seemingly, however, the female achiever does not possess an adequate sex role identity if identifying with a more masculine, instrumental father. Heilbrun and Fromme (1965) provided a tentative conclusion to explain this apparent contradiction:

. . . males with an orientation primarily instrumental are doubly reinforced (and better adjusted) because they conform to masculine stereotype and because this orientation is more effective for college success. College females who combine instrumental and expressive behaviors (mixed identification) tend to adjust, whereas those who conform to or tend to deny femininity by high- or low expressive orientations experience adjustive difficulties. Further, it seems reasonable to propose the girl's identification with a masculine mother as the basic paradigm for achieving a mixed identification, whereas identification with a feminine mother or masculine

father may promote a high - or low - expressive orientation, respectively.

It was one of the intentions of the present author to show that this hypothesis presented by Heilbrun and Fromme could be verified with junior high school students.

A child's parents are usually considered the major socializing agents influencing and molding the child's attitudes and behaviors. The child-rearing attitudes of parents should be antecedent to the child's parental identification and subsequent psychological adjustment and academic achievement. The relationship between child and parent or the identification of one with the other is viewed as an interactive process between father and mother in their own identity. It is the parents' own identity in their sex-roles which is carried over to the child by means of the parents' child-rearing attitudes and practices. Both a parent's general attitudes and his personal needs have been found to be predictive of his child-rearing practices (Block, 1955; Crandall & Preston, 1961; Hart, 1957; Kates & Diab, 1955; Zuckerman & Oltean, 1959). Parents of underachievers were found to be dissatisfied with their own stereotyped sex-roles (Hall, 1964; Katkovsky, Crandall, & Preston, 1964) and with one another (Hall, 1964; Sears, Maccoby, & Levin, 1957; Smykal, 1962; Tibbetts, 1955).

In addition to being satisfied with their own sex-roles, the parents of achievers seemingly are controlling but yet affectionate in their child-rearing attitudes and practices. They

set certain limits on the behavior of their children. While affectionate and warm to their children they are less so than the parents of underachievers, particularly the mothers. The parents of underachievers, furthermore, are quite permissive or controlling in a nurturant way — overprotectiveness which leads to a more dependent child or an actively aggressive or hostile one. The above parental child-rearing practices have been seen in the investigations of a number of researchers (Crandall, 1961; Crandall, Dewey, Katkovsky, & Preston, 1964; Crandall, Katkovsky, & Preston, 1960; Crandall, Preston, & Rabson, 1960; Drews & Teahan, 1957; Haggard, 1957; Hoffman, Rosen, & Lippett, 1960; Longstreth & Rice, 1964; Shaw, 1964; Shaw & Alves, 1963; Teahan, 1963). The present study attempted to show that parents of achieving students are more dominating, controlling, and less permissive in their child-rearing practices than are parents of underachieving students at the junior high school level.

A number of studies have suggested that positive parent-child relations (such as closeness to the child, high interest, understanding and/or approval of him, etc.) are conducive to competent academic achievement (Barwick & Arbuckle, 1962; Conklin, 1940; Jones, 1955; Kimball, 1953; Kurtz & Swenson, 1951; Peppin, 1963; Rickard, 1954; Tibbetts, 1955; Walsh, 1956). The family life of achieving students was found to be more pleasant, satisfying, and favorable than the family life of underachieving students (Kurtz & Swenson, 1951; McGuire, 1961; Smykal, 1962;

Tibbetts, 1955). It is the contention of the present author that this research is in no way contradictory to previous findings which stated that parents of achieving students are more controlling and less permissive in their child-rearing practices than are parents of nonachieving students. It is his opinion that a significant positive relationship does not exist between a permissive child-rearing practice and positive parent-child relations.

Finally, regarding the specific area of achievement development, a number of investigations have shown that parents' orientations toward their own achievement may influence their behaviors with their children in everyday achievement experiences—the greater value they place upon their own achievement the greater will be the value they place upon the achievement of their children (V. J. Crandall, 1963; V. C. Crandall, 1963; V. C. Crandall, Good, & V. J. Crandall, 1964; V. C. Crandall, Katkovsky, & V. J. Crandall, 1965; Haggard, 1957; Katkovsky, Crandall, & Preston, 1964; Kurtz & Swenson, 1951; Rosen & D'Andrade, 1959; Shaw & Brown, 1957; Tibbetts, 1955). The achieving students have parents who besides being achievers themselves place great value on achievement in their children. It has been found that the greater the value the fathers placed on their being intellectually competent themselves, the more likely they were to participate with their elementary-school-age children in intellectual pursuits, to motivate their children toward intellectual achievement activities and accomplishments,

and to react strongly with praise and acceptance to their children's achievement efforts. Similar reactions were found for mothers, except these were more frequently expressed in interactions with their daughters than with their sons (Katkovsky, Crandall, & Preston, 1964). A reinforcement theory of achievement development is thus proposed in addition to the role model theory.

Shaw (1960) in presenting a report sponsored by the United States Public Health Service summarized that:

There exists between the parents of children of the underachieving group a large emotional gap which may be either neutral or negative in nature. The lack of supervision, lack of interest, uncertainty with regard to how to raise their children or what to expect of them, and the relatively lower levels of aspiration which parents of underachievers have for them, all appear to contribute to what may be considered an underachievement syndrome.

In summary then it has been shown that there are a number of factors related to achievement in school. A descriptive picture of the psychological adjustment of the achieving student in comparison to the underachieving student is expansive. The variables which most often differentiate between the two groups are seen to be: self-concept, anxiety, hostility, difficulty in interpersonal relationships, independence-dependence conflict, low achievement motivation, and poor goal orientations. Another variable, that of parental identification, has been related to the psychological adjustment of the student. It has been found to have a direct bearing on the achievement or underachievement

of the students. Parental child-rearing attitudes and practices have also been discovered to have had an influence on the psychological adjustment of the student, his identification, and achievement or lack of it.

It was the general purpose of this present investigation to measure the psychological adjustment of junior high school students, their identification with their parents, and certain parental attitudes concerning the rearing of their children in order to obtain a more complete picture of academic achievement versus underachievement. The general personality structure of the students was assessed by use of the California Psychological Inventory (CPI) developed by Gough (1957) and used quite extensively with adolescents. Parental identification was measured with the use of the Adjective Check List (ACL) which was developed by Gough and Heilbrun (1965). The students and both parents were asked to rate themselves and each other descriptively according to the adjectives given on the ACL. Parent-child identification was assessed over four indices of relationship as previously outlined. Most of the previous research concerning parental attitudes has measured only those attitudes of the mothers. The present investigation attempted to measure the attitudes of both parents by means of Shoben's Parent Attitude Survey (1949). On the Parent Attitude Survey (PAS) the parents were asked to rate each other as well as themselves on their child-rearing attitudes. This technique has not been utilized in prior investigations. In addition, the students' perceptions

of their parents' child-rearing practices was assessed by means of Schaefer's Children's Report of Parental Behavior Inventory (CRPBI) (1965).

The present study thus attempted to bring together a large amount of data on the same sample in order to better view the differences between bright achieving and underachieving students on the junior high school level. In addition to the originality of this investigation posed by the compilation of data on the same sample of the population, it is the first time, in the knowledge of the author, that both parents and children are asked to rate themselves as well as each other in measuring parent-child identification. Mothers and fathers are also asked to assess each other's child-rearing attitudes. Their children are likewise questioned as to their parents' child-rearing practices.

The hypotheses were:

- 1) The achieving students are significantly better adjusted psychologically than are the underachievers.

- 2) Male achievers identify with a masculine, instrumental father, whereas male underachievers lack this type of father identification.

- 3) Female achievers identify with a masculine type of mother - controlling and aggressive yet affectionate - whereas female underachievers identify with an excessively expressive, nurturant mother or a rejecting, hostile mother.

4) Achievers, both male and female, have parents who are in general agreement as to how to rear their children, whereas the parents of underachievers, both male and female, are in general disagreement as to their child-rearing attitudes.

5) Achieving students perceive their parents' child-rearing practices to be significantly different than those of underachieving students.

Method

Subjects: The subjects that were used for this study were selected from the seventh and eighth grades of a Catholic elementary school in a predominately high socioeconomic class neighborhood of suburban Chicago, Illinois. Only those students who had attained an Intelligence Quotient (IQ) of 115 or higher on the Otis Quick-Scoring Mental Ability Tests (Form Beta-EM) were included in the sample. In this particular school all students are routinely administered the Otis Quick-Scoring Mental Ability Tests at the fourth grade level and again at the seventh grade level. To determine if there were any significant differences between the means of the IQ scores for grades four and seven, t tests of significance of means were performed utilizing both sets of IQ scores on all the students in the seventh and eighth grades. As Table 1 shows, no significant differences were found between the mean IQ scores for grades four and seven on the present seventh or eighth grade students taken individually by grade level or all students totaled together. Since no significant differences were found between the two sets of IQ scores on all the students in the seventh and eighth grades, it was decided that the IQ scores administered at the seventh grade level would be utilized because of the close proximity in time to the present

Table 1

Means, Standard Deviations, and t Values
Of Present Student Classes
On Differing Grade Level IQ Scores

Present Grade Level	<u>N</u>	4th Grade IQ Scores		7th Grade IQ Scores		<u>t</u>
		Mean	<u>SD</u>	Mean	<u>SD</u>	
7	116	111.6	9.61	113.6	9.44	1.60
8	124	113.3	9.43	111.9	9.24	1.18
7+8	240	112.4	9.58	112.7	9.33	.35

students' grade placement under investigation.

A student was classified as an achiever if his grade-point average (GPA) for a two-year period prior to the study was 3.0 (B) or above based on a 4.0 point scale. A student was classified as an underachiever if his GPA for a two-year period prior to the study was 2.8 or below. These cut-off points represent roughly the top 25 per cent and the bottom 60 per cent of the total distribution of grades in the seventh and eighth grade classes in the school. The subjects thus chosen on the basis of achievement or underachievement were then further grouped by their sex. Four achievement groups were therefore determined: 1) Male Achievers (MA), 2) Male Underachievers (MU), 3) Female Achievers (FA), and 4) Female Underachievers (FU).

In order to equate the selected groups in respect to IQ and to differentiate them as to achievement level, t tests of the significance of means were utilized to show that the selection of the achieving versus underachieving groups differed significantly as to GPA but not to measured intellectual ability. Table 2 shows clearly that both the male and female achievers did not differ significantly from the underachievers in respect to IQ, but that they did differ significantly ($p < .001$) in regards to GPA. As such, it can be stated that the selected groups are equated as to intellectual ability and differentiated as to achievement level.

Following the selection of the student groups, their

Table 2

Means, Standard Deviations, and t Values Between
Groups on Intelligence Quotient (IQ)
And Grade Point Average (GPA)

Achievement Level	<u>N</u>	Mean IQ	<u>SD</u>	<u>t</u>	Mean GPA	<u>SD</u>	<u>t</u>
MA	23	122.30	4.83	1.87	3.45	.260	11.96 ***
MU	27	119.88	4.18	n.s.	2.42	.347	
FA	34	121.56	4.76	1.27	3.44	.254	12.19 ***
FU	18	119.83	4.59	n.s.	2.65	.202	

*** = $p < .001$

parents were asked to participate in the investigation by responding to a series of psychometric instruments. Table 3 presents the classification and distribution of student and parent sample and the percentage of parents who participated.

Although the student and parent sample sizes are relatively small when grouped according to achievement level and sex, there is supporting evidence for the use of small samples both from a purely statistical basis and from past research concerning achievement versus underachievement.

According to the theory, especially as amplified by Neyman and Pearson (1933), the probability of rejecting the null hypothesis for any given deviation from null and p value increases as a function of the number of observations. In the statistical reasoning presented by Bakan (1966) the rejection of the null hypothesis when a number of cases is small speaks for a more dramatic effect in the population. In addition, he stated that if the p value is the same, the probability of committing a Type I error remains the same. Thus one can be more confident with a small n than a large n . Bakan further stated that the error which is often made by psychologists, referring to a study by Rosenthal and Gaito (1963), is in accepting the false premise that the p value is a measure of confidence and in failing to recognize that the p value is a function of sample size for any given deviation from null in the population. Bakan claimed that:

The author knows of instances in which editors of very reputable psychological journals have rejected

Table 3

**Distribution of Student and Parent Sample
And Percent of Participating Parents**

Achievement Level	Students	Mothers	%	Fathers	%
Male Achiever (MA)	23	13	56.5	11	47.8
Male Underachiever (MU)	27	14	51.8	11	40.7
Female Achiever (FA)	34	20	58.8	18	52.9
Female Underachiever (FU)	18	14	77.7	13	72.2
Total	102	61	59.8	53	51.9

papers in which the p values and n's were small on the grounds that there were not enough observations, clearly demonstrating that the same mode of thought is operating in them. Indeed, rejecting the null hypothesis with a small n is indicative of a strong deviation from null in the population, the mathematics of the test of significance having already taken into account the smallness of the sample. Increasing the n increases the probability of rejecting the null hypothesis; and in these studies rejected for small sample size, that task has already been accomplished. These editors are, of course, in some sense the ultimate "teachers" of the profession; and they have been teaching something which is patently wrong.

In a historical and methodological approach to the usefulness of N=1 studies, Dukes (1965) contended that the value of such research extends beyond the single case studies of the clinicians and the personologists. In his review of the literature between the years 1939 to 1963, he found a total of 246 N=1 studies indicating that N=1 research has played a significant role in psychological history.

With respect to the present research concerning achievement versus underachievement, a considerable number of authors have utilized small sample groups. Table 4 presents a list of articles reviewed for the present investigation and gives the N's of the sample groups. As indicated, the subjects were grouped according to achievement level and according to sex which is what was done for the present study. Of the 13 investigations which employed this grouping method only two were found to have large samples (Heilbrun, 1963a; Taylor & Farquhar, 1965). However, both of these had an extremely large population from which to obtain their samples.

Table 4

Studies Grouped By Achievement
Levels and By Sex

Research	Males			Females		
	Over- Ach <u>N</u>	Avg. Ach <u>N</u>	Under- Ach <u>N</u>	Over- Ach <u>N</u>	Avg Ach <u>N</u>	Under- Ach <u>N</u>
Barwick & Arbuckle (1962)	15	15	15	15	15	15
Bruck & Bodwin (1962)	10	10	10	10	10	10
Gough (1949)		13	13		14	13
Heilbrun (1963a)		233	316		206	222
Powell & Jourard (1963)		20	20		20	20
Shaw & Alves (1963)		20	19		20	19
Shaw & Grubb (1958)		17	16		25	22
Shaw & McCuen (1960)		36	36		45	17
Shaw & White (1965)		30	36		33	15
Smykal (1962)		16	14		16	14
Taylor & Farquhar (1965)		157	137		178	169
Teahan (1963)		22	22		23	23
Winkelman (1963)	20	20	20	20	20	20

Table 5 presents a list of research articles in which the subjects were classified as to achievement level but without regard to the sex of the subjects. Table 6 presents a list of research articles in which only male subjects were classified as to achievement levels. As shown on both tables the use of small samples in the research is quite frequent. Thus from the research cited for the present study and on the basis of statistical reasoning as presented by Bakan (1966), support is given for the sample size as employed in this investigation.

Apparatus: Once the selection of the groups was made on the basis of the Otis Quick-Scoring Mental Ability Tests and the students' grades for the two years prior to the investigation, the test measures were then administered. In order to assess the general personality adjustment of the selected student sample, the California Psychological Inventory (CPI) was administered to them as a group. The CPI, a personality inventory developed by Gough (1957), has been used quite extensively and quite favorably in studying the personality characteristics of achievers and underachievers. The inventory is intended primarily for use with "normal" (nonpsychiatrically disturbed) subjects with the main emphasis on providing a comprehensive survey of an individual from the social interaction point of view. It is comprised of 18 separate scales which are grouped into four broad categories: 1) measures of poise, ascendancy, and self-assurance, 2) measures of socialization, maturity, and responsibility, 3) measures of achievement potential and intellectual efficiency, and 4)

Table 5

Studies Grouped By Achievement Level
But Not Differentiated By Sex

Research	Achievers <u>N</u>	Underachievers <u>N</u>
Barrett (1957)	16	16
Diener (1960)	69	69
Dowd (1952)	19	16
Frankel (1960)	42	42
Horrall (1957)	94	94
Kerns (1957)	66	66
Klausmeier (1958)	12	16
Kurtz & Swenson (1951)	20	20
Peppin (1963)	36	36

Table 6

Studies Grouped By Achievement Level
But Only Male Students Considered

Research	Overachievers <u>N</u>	Achievers <u>N</u>	Underachievers <u>N</u>
Combs (1964)		25	25
Corlis (1963)		16	16
DeSena (1964)	14	14	14
Hall (1964)		20	20
Koenigsberg (1962)	45	45	45
McKenzie (1964)	75	75	75
Morgan (1952)		66	66
Shaw & Brown (1957)		30	28
Tibbetts (1955)		19	19

measures of intellectual and interest modes. Although mainly used with high school and college students, Gough (1953a) has found the CPI to be a valid instrument in predicting high school grades. He feels that it is an effective measure of personality down to approximately age ten.

In determining parent-child identification the Adjective Check List (ACL) was employed. It was administered to both the selected students and their parents in separate group settings. The ACL was developed by Gough and Heilbrun (1965). It consists of 300 adjectives commonly used to describe attributes of a person. The ACL comprises 24 experimental scales, 7 of which were developed by Gough and the remaining 17 by Heilbrun. Of the scales which were developed by Heilbrun, 15 were based on Murray's need-press system (1938). These 15 scales are called the ACL Need Scales. The manual for the ACL reports correlations between the ACL and the CPI scales. Many are highly correlated indicating that the ACL can be judged to be a valid personality inventory in its own right.

The child-rearing attitudes of the parents were measured with the use of Shoben's Parent Attitude Survey (PAS) devised in 1949. The instrument contains 85 items, 75 of which are arranged around three subscales: the Dominating (D) Scale, the Possessive (P) Scale and the Ignoring (I) Scale. The remaining 10 items are classified into a Miscellaneous (M) Scale about which little is known. A parent scoring high on the D Scale is judged to be controlling in his child-rearing attitudes and practices. A

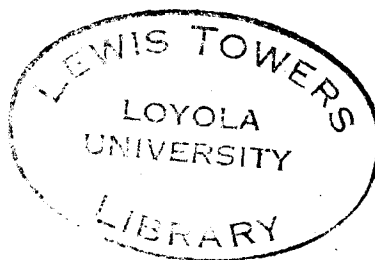
parent scoring high on the P Scale is judged to be more permissive in his attitudes towards child-rearing than is the high D parent. The parent scoring high on the I Scale is thought to show evidence of apathy towards children. The parents rate each of the 85 statements as to whether they "Strongly Agree," "Mildly Agree," "Mildly Disagree," or "Strongly Disagree" with the worded statement. The total score for each scale is based on weights assigned to each item according to the standardization of the instrument. The scale score totals can be used separately or as parts of the total combined score.

As an indication of how the student sample perceived their parents' child-rearing practices, they were administered Schaefer's Children's Report of Parental Behavior Inventory (CRPBI) devised in 1965. 192 statements describing parental behavior in relation to child-rearing practices are classified into 18 scales. The students rate each statement as to whether it is "Like" their parents' behavior towards them, "Somewhat Like" it, or "Not Like" their behavior. The inventory is scored by assigning the value 3 to "Like," 2 to "Somewhat Like," and 1 to "Not Like" in sequential order as to the placement of each scale on the score sheet. The author of this instrument stated that the reliability data and the analyses of group differences indicate that the inventory provides a sensitive method for investigating children's perceptions of parental behavior.

Procedure: The student sample was gathered together in a large classroom so that they could be administered the

research. Two nights were held a week apart in order to obtain responses from a greater sample of the parents. The parents and the examiner met at a specified time in the early evening at the parish social hall. The hall was prearranged and equipped to provide an adequate group-testing situation. Prior to presenting the questionnaires or inventories to the parents, they were told that their sons or daughters were selected for the investigation because of their previously tested intellectual ability. They were also told that their responses to the inventories were an integral part of the investigation. They were also informed that a complete explanation would follow. Each parent was then given a booklet of tests comprised of the ACL and the PAS. The booklet was coded in a similar fashion to that used for the students — the only difference being that the code for the parents was prefaced with a F for father or a M for mother. After the appropriate parent received his or her test booklet they became anonymous. The instructions for the particular test were printed on the test form. The following changes from the original instructions were made, however: on the PAS each parent was asked to rate his or her own parental attitudes concerning child-rearing and then to rate those attitudes of his or her spouse; on the ACL each parent was asked to describe himself, his spouse, and his child involved in the study. Following the administration of the inventories an open discussion was held with the parents concerning purposes and the hypotheses of the investigation. The total time for the administration and discussion was

two hours. A week separated the first parent session from the student testing sessions.



Results

The analyses of results were focused on discovering significant differences between the means of the achievement groups and between the means of the sexes on the various scales of the different test measures. Pearson's correlation coefficients were obtained to determine parent-child identification and to assess parental agreement as to child-rearing attitudes. The r to z transformation was then utilized to determine the significance of differences in correlations between achiever and underachiever groups of the same sex. Differences between the males and the females by achievement group were also obtained on the various test measures. Two-tailed tests of significance were performed.

California Psychological Inventory

The t test of significance of means was performed between achievement groups by sex and between the sexes by achievement group on the 18 scales or variables of the CPI in order to see if there were any significant differences in the personality adjustment between the achievement groups and between the sexes. Table 7 gives the means, standard deviations, and t values between the Male Achievement (MA) group and the Male Underachievement (MU) group on each CPI scale. With respect to the male students, a significant difference was shown on the scale of

Means, Standard Deviations, and t Values
Between Male Student Groups On
California Psychological Inventory (CPI) Variables

Variable	MA (<u>N</u> =23)		MU (<u>N</u> =27)		<u>t</u>
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Dominance	50.96	11.57	42.70	13.29	2.32*
Capacity for Status	39.52	10.69	35.00	6.23	1.86
Sociability	47.52	7.19	44.41	11.02	1.16
Social Presence	51.26	9.27	50.85	10.96	.14
Self Acceptance	57.30	9.95	48.96	10.03	2.94**
Sense of Well Being	36.17	12.70	30.63	15.52	1.37
Responsibility	42.04	7.75	37.19	10.16	1.88
Socialization	48.13	8.00	44.00	11.06	1.49
Self Control	36.17	9.10	35.15	9.74	.38
Tolerance	36.22	11.34	34.30	9.87	.64
Good Impression	36.26	9.44	36.33	7.96	.03
Communality	50.13	8.61	45.59	14.61	1.31
Ach. via Conformity	41.30	7.21	35.07	10.99	2.32*
Ach. via Independence	38.48	10.14	36.85	7.70	.64
Intellectual Efficiency	36.91	11.71	37.07	11.27	.05
Psychological Mindedness	41.30	8.88	41.37	9.81	.03
Flexibility	46.13	10.50	48.81	10.74	.89
Femininity	51.43	9.44	47.93	8.90	1.35

* = $p < .05$

** = $p < .01$

20

Dominance ($t = 2.32$, $p < .05$). Accordingly, the male achievers can be viewed as being more aggressive, confident, persistent, and planful than the male underachievers. In addition, this significant difference tends to show that the male achievers are more self-reliant, independent, and possess leadership potential and initiative. The male underachievers can be viewed as being retiring, inhibited, indifferent, unassuming and lacking in self-confidence and initiative.

The male achievers also differed significantly from the male underachievers on the scale of Self Acceptance ($t = 2.94$, $p < .01$). The male achievers can be described as being more outspoken, demanding, aggressive, persuasive, self-confident, and self-assured than the male underachievers. The male underachievers can be described as being passive, easygoing, conventional, and given to feelings of guilt and self-blame. The two scales, Dominance and Self Acceptance, tend to measure approximately the same or similar personality characteristics as evidenced in the scale intercorrelation of .48 ($p < .001$) as given in the Manual for the standardization sample (1957).

A significant difference in means was also found between the male achievement groups on the scale of Achievement via Conformity ($t = 2.32$, $p < .05$). The male achievers can function in a setting where conformance is a positive behavior. If they have to conform to certain value systems in order to achieve, they are able to do so. And in doing so they tend to be efficient, organized, cooperative, persistent, and industrious. The male

underachievers, however, tend to become disorganized under stress or pressures to conform. They tend to react negatively towards conformity, and as such become stubborn, aloof, and opinionated. They can be described as being insecure and pessimistic about their occupational futures.

Although not significant at the 5 per cent level of confidence, the difference in means between male achievement groups on the scales of Capacity for Status and Responsibility approached significance ($p < .10$). Male achievers show certain evidence of being ambitious, active, self-seeking, conscientious, and responsible. Male underachievers are somewhat apathetic, dull, immature, moody, and easily influenced by stereotyped thinking.

It is interesting to note that while not significant the majority of the mean differences on all the scales of the CPI favor a better psychological adjustment on the part of the male achievers.

Table 8 gives the means, standard deviations, and t values between the Female Achievement (FA) group and the Female Underachievement (FU) group. A significant difference between female achievement group means was found on only one scale, Communalities, ($t = 2.66$, $p < .02$). This scale indicates the degree to which an individual's reactions and responses correspond to the "common" pattern established for the inventory as a whole. High scorers on this scale tend to be viewed as being dependable, tactful, reliable, sincere, honest, conscientious, and realistic. Low

Table 8

Means, Standard Deviations, and t Values
Between Female Student Groups On
California Psychological Inventory (CPI) Variables

Variable	FA (N=34)		FU (N=18)		<u>t</u>
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Dominance	45.47	10.79	45.56	12.59	.03
Capacity for Status	37.21	12.07	35.72	12.94	.41
Sociability	46.76	13.77	45.94	9.94	.22
Social Presence	49.47	11.85	50.89	10.97	.42
Self Acceptance	49.62	11.66	50.78	11.71	.34
Sense of Well Being	37.91	12.85	39.89	15.55	.49
Responsibility	45.26	8.58	42.67	9.56	1.00
Socialization	48.03	11.10	43.78	12.91	1.24
Self Control	40.94	11.21	42.83	13.21	.54
Tolerance	37.59	14.14	36.00	14.84	.38
Good Impression	39.24	10.19	42.06	12.57	.88
Communality	48.68	8.47	40.89	12.52	2.66*
Ach. via Conformity	43.24	10.49	41.72	12.25	.47
Ach. via Independence	42.21	10.04	42.22	11.15	.01
Intellectual Efficiency	41.62	10.02	40.94	14.31	.20
Psychological Mindedness	44.12	9.10	40.56	11.01	1.25
Flexibility	50.85	12.58	50.72	9.06	.04
Femininity	51.88	7.86	48.61	9.45	1.33

* = $p < .02$

scorers, on the other hand, are viewed as being impatient, complicated, disorderly, restless, inattentive, forgetful, and as having internal conflicts and problems. It appears from this significant difference between the female achievement groups that the female achievers are better adjusted than the female underachievers on the basis of what is expected of the "normal" female. However, this conclusion is somewhat questionable based on the relatively small number of female underachievers in the sample.

The Personal Adjustment scale of the ACL was found to be positively correlated with 10 of the 18 CPI scales at the .05 or greater levels of significance on the standardization sample according to the ACL Manual (1965). Therefore, the t test of significance of means was performed between the achievement groups by sex on this scale in order to obtain a more general index of the differences between groups in personality adjustment. Table 9 shows that the difference between the male achievement groups approached significance at the 5 per cent level of confidence ($t = 2.00$, $p < .10$). The male achievers in this sample have a marked tendency to being better adjusted psychologically than the male underachievers. The difference between female achievement groups was not significant ($t = .06$). The female achievers in the sample were not different than the female underachievers in their general personality adjustment as measured by the Personal Adjustment scale of the ACL. This scale seems to depict a positive attitude toward life more than an absence of

Table 9

Means, Standard Deviations, and t Values
Between Achievement Groups By Sex On
Personal Adjustment Scale of ACL

Achievement Level	<u>N</u>	Means	<u>SD</u>	<u>df</u>	<u>t</u>
MA	23	48.78	6.99	48	2.00
MU	27	44.11	9.44		
FA	34	50.15	8.20	50	.06
FU	18	50.00	7.94		

problems and worries — a person who is effective and can "love and work" in society.

The t test of significance of means was also performed between the sexes by achievement group on the 18 scales of the CPI in order to see if there were any significant differences in the personality adjustment between the sexes. Table 10 presents the means, standard deviations, and t values between the male and the female achievement groups on each CPI scale. The male achievers differed significantly from the female achievers on the scale of Self Acceptance ($\underline{t} = 2.59, p < .02$). The male achievers can be described as being more outspoken, demanding, aggressive, persuasive, self-confident, and self-assured than are the female achievers. Although not significant at the 5 per cent level of confidence, the difference in means between the male achievers and the female achievers on the scale of Dominance approached significance ($\underline{t} = 1.83, p < .10$). As previously indicated, these two scales are highly correlated with one another. It appears that the obtained differences between the male and the female achievers on these two scales suggest a certain degree of validity to the stereotyped view of males being more dominant, aggressive, assertive, and self-assured than are females.

Table 11 gives the means, standard deviations, and t values between the male and the female underachievers on the CPI scales. A significant difference between these two groups was obtained on the scale of Self Control ($\underline{t} = 2.25, p < .05$). The female underachievers appear better able to control their impulses than

Table 10

Means, Standard Deviations, and t Values
Between Male and Female Achieving Groups On
California Psychological Inventory (CPI) Variables

Variable	MA (<u>N</u> =23)		FA (<u>N</u> =34)		<u>t</u>
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Dominance	50.96	11.57	45.47	10.79	1.83
Capacity for Status	39.52	10.69	37.21	12.07	.74
Sociability	47.52	7.19	46.76	13.77	.24
Social Presence	51.26	9.27	49.47	11.84	.61
Self Acceptance	57.30	9.95	49.62	11.66	2.59*
Sense of Well Being	36.17	12.70	37.91	12.85	.50
Responsibility	42.04	7.75	45.26	8.58	1.45
Socialization	48.13	8.00	48.03	11.10	.04
Self Control	36.17	9.10	40.94	11.21	1.70
Tolerance	36.22	11.34	37.59	14.14	.39
Good Impression	36.26	9.44	39.24	10.19	1.11
Communality	50.13	8.61	48.68	8.47	.63
Ach. via Conformity	41.30	7.21	43.24	10.49	.77
Ach. via Independence	38.48	10.14	42.21	10.04	1.37
Intellectual Efficiency	36.91	11.71	41.62	10.02	1.63
Psychological Mindedness	41.30	8.88	44.12	9.10	1.16
Flexibility	46.13	10.50	50.85	12.58	1.48
Femininity	51.43	9.44	51.88	7.86	.19

* = $p < .02$

Table 11

Means, Standard Deviations, and t Values
Between Male and Female Underachieving Groups On
California Psychological Inventory (CPI) Variables

Variable	MU (<u>N</u> =27)		FU (<u>N</u> =18)		<u>t</u>
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Dominance	42.70	13.29	45.56	12.59	.72
Capacity for Status	35.00	6.23	35.72	12.94	.25
Sociability	44.41	11.02	45.94	9.94	.48
Social Presence	50.85	10.96	50.89	10.97	.01
Self Acceptance	48.96	10.03	50.78	11.71	.56
Sense of Well Being	30.63	15.52	39.89	15.55	1.96
Responsibility	37.19	10.16	42.67	9.56	1.82
Socialization	44.00	11.06	43.78	12.91	.06
Self Control	35.15	9.74	42.83	13.21	2.25*
Tolerance	34.30	9.87	36.00	14.84	.46
Good Impression	36.33	7.96	42.06	12.57	1.87
Communality	45.59	14.61	40.89	12.52	1.12
Ach. via Conformity	35.07	10.99	41.72	12.25	1.90
Ach. via Independence	36.85	7.70	42.22	11.15	1.91
Intellectual Efficiency	37.07	11.27	40.94	14.31	1.01
Psychological Mindedness	41.37	9.81	40.56	11.01	.26
Flexibility	48.81	10.74	50.72	9.06	.62
Femininity	47.93	8.90	48.61	9.45	.25

* = $p < .05$

the male underachievers. The male underachievers seem to be more self-centered, uninhibited, and impulsive than the female underachievers.

Although not significant at the .05 level of confidence, the difference in means between the male underachievers and the female underachievers approached significance on the scales: Sense of Well Being (\underline{t} = 1.96, $p < .10$), Responsibility (\underline{t} = 1.82, $p < .10$), Good Impression (\underline{t} = 1.87, $p < .10$), Achievement via Conformity (\underline{t} = 1.90, $p < .10$), and Achievement via Independence (\underline{t} = 1.91, $p < .10$). The female underachievers have a marked tendency to be more energetic, ambitious, productive, responsible, cooperative, and able to create a favorable impression than the male underachievers. The female underachievers also have a tendency to be more persistent, industrious, and foresighted in achieving goals than the male underachievers. The male underachievers can be described as being somewhat coarse, stubborn, awkward, and lacking in drive or motivation to perform and achieve.

The \underline{t} test of significance of means was performed between the sexes by achievement group on the Personal Adjustment scale of the ACL in order to obtain a more general index of the differences between the sexes in personality adjustment. Table 12 shows that the female underachievers differed significantly from the male underachievers (\underline{t} = 2.26, $p < .05$) indicating that the female underachievers are better adjusted psychologically than the male underachievers in the sense of being better able to

Table 12

Means, Standard Deviations, and t Values
Between Sexes By Achievement Group On
Personal Adjustment Scale of ACL

Achievement Level	<u>N</u>	Means	<u>SD</u>	<u>df</u>	<u>t</u>
MA	23	48.78	6.99	55	.67
FA	34	50.15	8.20		
MU	27	44.11	9.44	43	2.26 *
FU	18	50.00	7.94		

* = $p < .05$

"love and work" in society.

Adjective Check List

In order to measure parent-child identification, Pearson product-moment correlation coefficients were computed between: 1) each student's rating of himself and his rating of each parent, 2) each parent's self-rating and his rating of his child, and 3) each student's self-rating and the self-rating of each of his parents. These correlations were performed on all the scales of the ACL. Tables 13-15 report on the correlations and their significance on the 15 ACL Need Scales. Table 17-18 report on the significance of the correlations between the achievement groups on the ACL Need Scales. Tables 19-20 report on the significance of the correlations between the sexes on the ACL Need Scales.

Table 13, which lists the correlations between the child's self-rating and his rating of his parents, actually is an indication of the child's perception of his similarity with his parents. Because of the multitude of correlations that are reported, their significance becomes somewhat less meaningful. In order to simplify the magnitude of these correlations, Figure 1 and Figure 2 are presented indicating the student's self-ratings with his ratings of his father and mother respectively. Since many significant correlations were found, the findings related to each ACL Need Scale are reported separately.

1) Achievement: Female achievers ($N = 34$) perceived themselves to be like both their fathers ($r = .37, p .05$) and

Table 13

Correlations Between Child's Rating of Self
And Child's Rating of Parents on ACL Need Scales

ACL Need Scales	Child To Self:: Child To Father (C-C::C-F)				Child To Self:: Child To Mother (C-C::C-M)			
	MA	MU	FA	FU	MA	MU	FA	FU
	(N=23)	(N=27)	(N=34)	(N=18)	(N=23)	(N=27)	(N=34)	(N=18)
Achievement	.33	.04	.37*	.44	.33	.38	.34*	.42
Dominance	.63**	.40*	.39*	.61**	.13	.50**	.48**	.33
Endurance	.21	.25	.29	.42	.36	.49**	.58***	.65**
Order	.46*	.07	.22	.37	.35	.27	.37*	.43
Intracception	-.10	.43*	.47**	.56*	.07	.29	.61***	.29
Nurturance	.27	.70***	.58***	.67**	.27	.58**	.37*	.26
Affiliation	.34	.58**	.71***	.67**	.28	.26	.51**	.56*
Heterosex.	.55**	.66***	.56***	.62**	.48*	.50**	.46**	.44
Exhibition	.62**	-.05	.16	.01	.20	.14	.30	.44
Autonomy	.49*	.32	.30	.35	.12	.28	.12	-.07
Aggression	.40	.56**	.41*	.52*	.27	.18	.20	.20
Change	.33	-.14	.08	-.07	.33	.03	.10	.30
Succorance	.17	.24	.64***	.66**	.17	.30	.62***	.33
Abasement	.63**	.14	.05	-.00	.19	.00	.22	.17
Deference	.50*	.21	.33	.62**	-.05	.14	.29	.11

* = $p < .05$
 ** = $p < .01$
 *** = $p < .001$

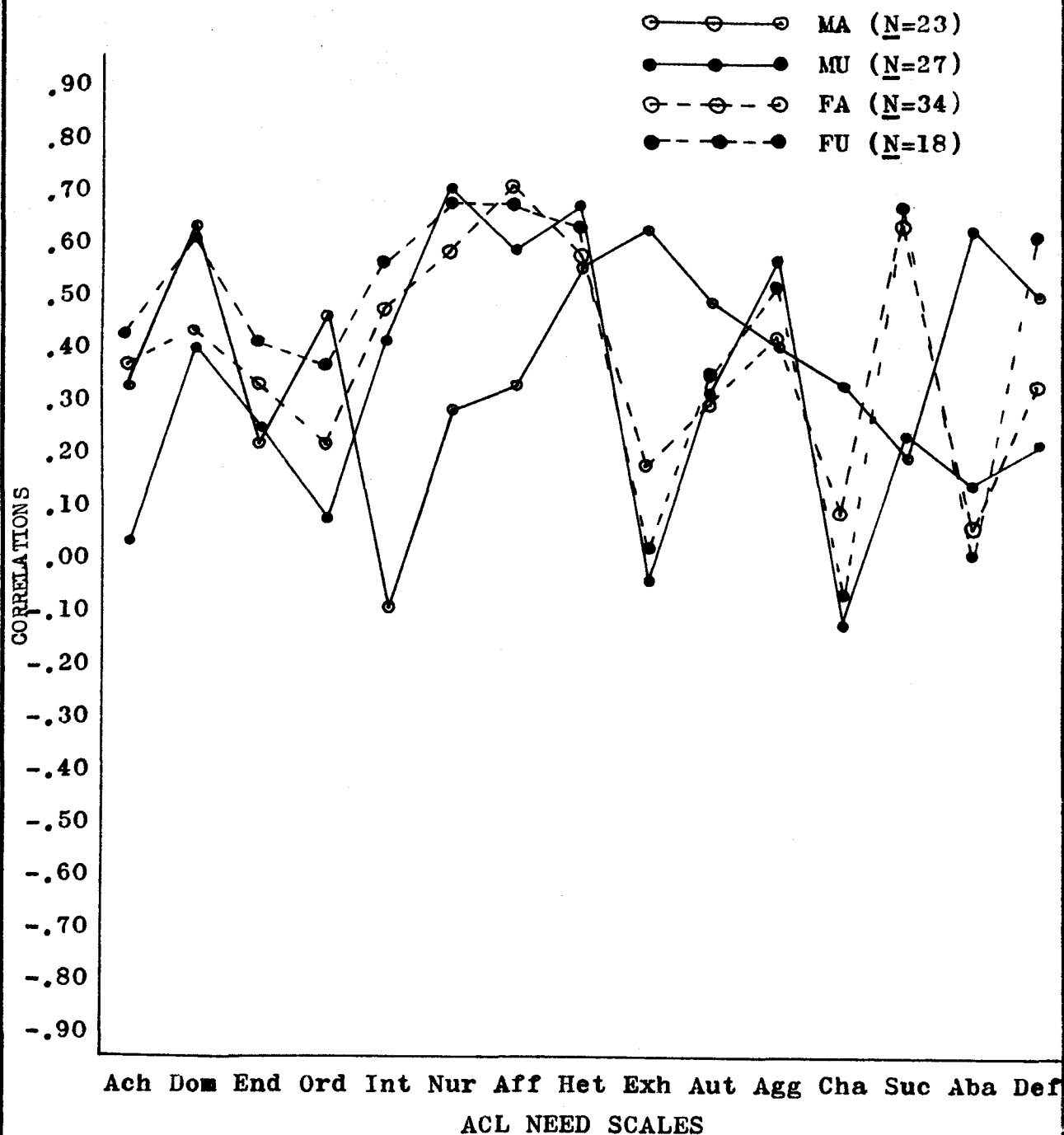


Fig. 1. Correlations between child's self-rating and his rating of his father on ACL Need Scales.

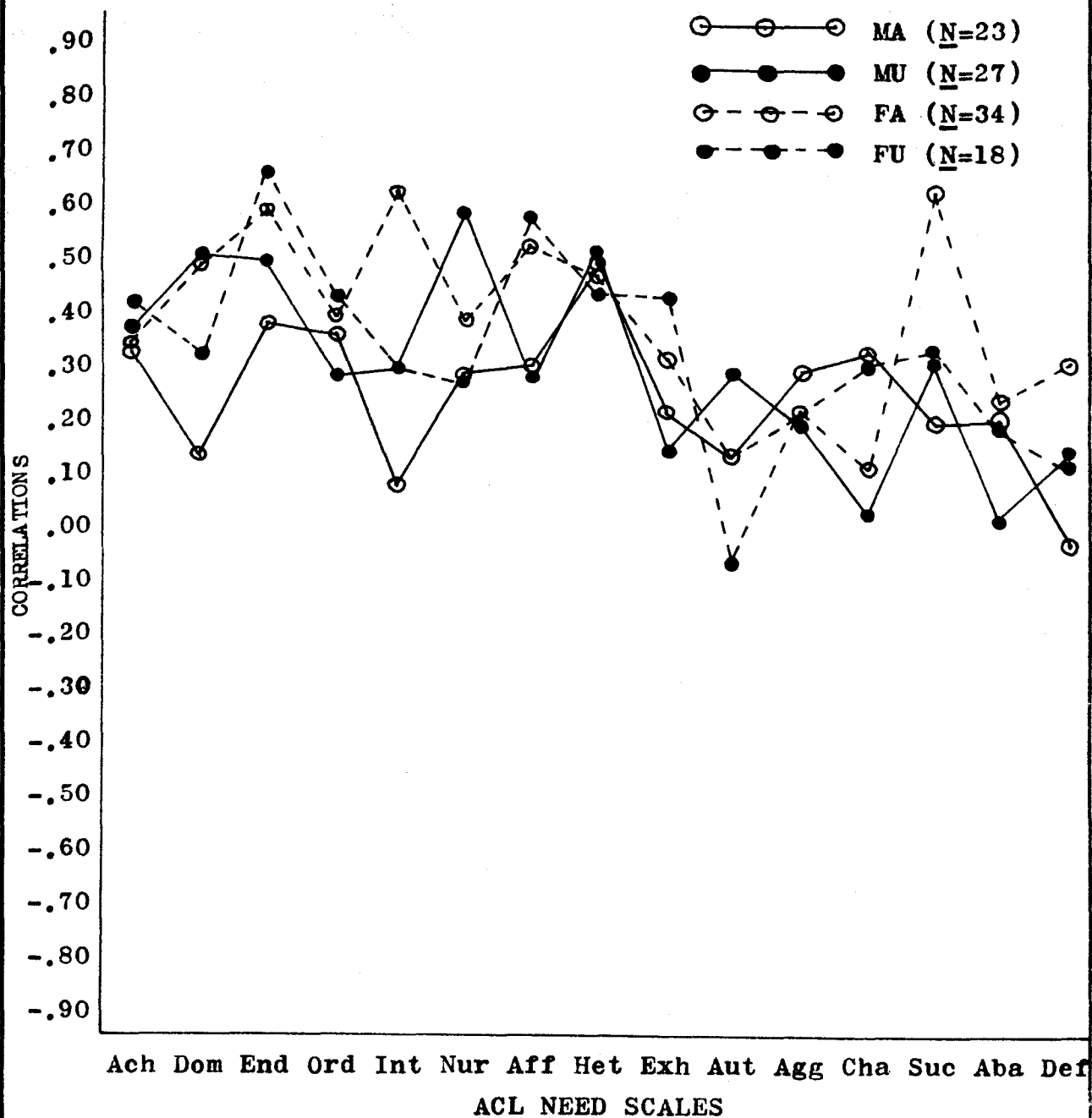


Fig. 2. Correlations between child's self-rating and his rating of his mother on ACL Need Scales.

their mothers ($\underline{r} = .34, p < .05$).

2) Dominance: Male achievers ($\underline{N} = 23$) perceived themselves to be like their fathers ($\underline{r} = .63, p < .01$) but not their mothers. Male underachievers ($\underline{N} = 27$) perceived themselves to be similar to their fathers ($\underline{r} = .40, p < .05$) and to their mothers ($\underline{r} = .50, p < .01$). On the same scale the female achievers ($\underline{N} = 34$) perceived themselves to be like their fathers ($\underline{r} = .39, p < .02$) and also like their mothers ($\underline{r} = .48, p < .01$). The female underachievers ($\underline{N} = 18$) believed that they were like their fathers ($\underline{r} = .61, p < .01$) but not their mothers in being dominant.

3) Endurance: Male underachievers ($\underline{N} = 27$) perceived themselves similar to their mothers ($\underline{r} = .49, p < .01$). Female achievers ($\underline{N} = 34$) and underachievers ($\underline{N} = 18$) also rated themselves similar to their mothers ($\underline{r} = .58, p < .001$; $\underline{r} = .65, p < .01$ respectively).

4) Order: Male achievers ($\underline{N} = 23$) viewed themselves as similar to their fathers ($\underline{r} = .46, p < .05$). Female achievers ($\underline{N} = 34$) rated themselves like they rated their mothers ($\underline{r} = .37, p < .05$).

5) Intraception: Male underachievers ($\underline{N} = 27$) rated themselves like they rated their fathers ($\underline{r} = .43, p < .05$). The female achievers perceived themselves to be like their fathers ($\underline{r} = .47, p < .01$). Female achievers ($\underline{N} = 34$) also rated themselves like they rated their mothers ($\underline{r} = .61, p < .001$). The female underachievers ($\underline{N} = 18$) saw similarity between themselves and their fathers ($\underline{r} = .56, p < .02$).

6) Nurturance: Male underachievers ($N=27$) rated themselves similar to their fathers ($r=.70, p<.001$) and to their mothers ($r=.58, p<.01$). The female achievers ($N=34$) perceived themselves like their fathers ($r=.58, p<.001$) and their mothers ($r=.37, p<.05$). The female underachievers ($N=18$) rated themselves and their fathers alike ($r=.67, p<.01$).

7) Affiliation: Male underachievers ($N=27$) rated themselves like their fathers ($r=.58, p<.01$). The female achievers perceived themselves like their fathers ($r=.71, p<.001$). The female achievers ($N=34$) also rated themselves and their mothers alike ($r=.51, p<.01$). Underachieving females ($N=18$) rated themselves like their fathers ($r=.67, p<.01$) and their mothers ($r=.56, p<.02$).

8) Heterosexuality: All achievement groups and sexes rated themselves like both parents at a significant level except the female underachievers with their mothers. It is interesting to note that there is cross-sex identification with all groups, and that the females perceived themselves in this manner more so than the males.

9) Exhibition: The male achievers ($N=23$) rated themselves like they rated their fathers ($r=.62, p<.01$).

10) Autonomy: The male achievers perceived themselves like their fathers ($r=.49, p<.02$). The male achievers ($N=23$) were the only group to show similarity to a parent group.

11) Aggression: The male underachievers ($N=27$) rated themselves like their fathers ($r=.56, p<.01$). The female

achievers ($N= 34$) and underachievers ($N= 18$) perceived themselves to be like their fathers ($r= .41, p < .02$; $r= .52, p < .05$ respectively).

12) Change: No group perceived themselves to be significantly like any parent on this scale.

13) Succorance: Female achievers ($N= 34$) identified themselves with both their fathers ($r= .64, p < .001$) and their mothers ($r= .62, p < .001$). The female underachievers ($N= 18$) perceived themselves like their fathers ($r= .66, p < .01$).

14) Abasement: The male achievers ($N= 23$) perceived themselves like their fathers ($r= .63, p < .01$). This finding appears to be in sharp contrast to previous results.

15) Deference: Male achievers ($N= 23$) rated themselves like their fathers ($r= .50, p < .02$). The female underachievers ($N= 18$) identified themselves with their fathers also ($r= .62, p < .01$).

Table 14 shows parent-child identification in the perceptions of the parents to themselves with their perceptions of their children. Figure 3 and Figure 4 are presented showing the father and the mother's self-ratings respectively and their ratings of their children. The significant findings again are listed according to the ACL Need Scales.

1) Achievement: The fathers of the female achievers ($N= 18$) perceived themselves to be like their daughters ($r= .52, p < .05$).

2) Dominance: A significant negative correlation

Table 14

Correlations Between Parents' Rating of Themselves
And Parents' Rating of Child On ACL Need Scales

ACL	Father To Self: Father To Child (F-F::F-C)				Mother To Self:: Mother To Child (M-M::M-C)			
	MA	MU	FA	FU	MA	MU	FA	FU
	(N=11)	(N=11)	(N=18)	(N=13)	(N=13)	(N=14)	(N=20)	(N=14)
Achievement	-.06	.31	.52*	-.29	.09	-.33	.38	.01
Dominance	.19	.25	.02	-.73**	-.00	-.15	.17	.45
Endurance	.09	.40	.63**	.34	-.46	.06	.66**	-.22
Order	.22	.55	.61**	.39	-.15	.09	.67**	-.29
Intraception	-.19	.74**	.11	.66**	-.19	.20	-.05	-.07
Nurturance	.20	.25	.37	.56*	-.10	.13	-.08	.25
Affiliation	.21	.28	.17	.36	.19	.40	.18	.19
Heterosex.	.42	.62*	.06	.34	.55	.58*	-.13	-.16
Exhibition	.64*	.38	.63**	-.49	-.19	-.04	.27	.66*
Autonomy	.07	.36	.31	-.06	.05	.01	.15	.46
Aggression	.24	-.15	.14	.14	-.51	-.19	.34	.57*
Change	.44	.80**	.37	.28	.10	-.06	.49*	.27
Succorance	.01	.56	.31	-.05	.01	-.18	.34	.51
Abasement	.31	-.05	.15	-.64*	.17	-.03	.28	.42
Deference	.28	-.14	.31	-.09	.05	-.17	.29	.64*

* = $p < .05$

** = $p < .01$

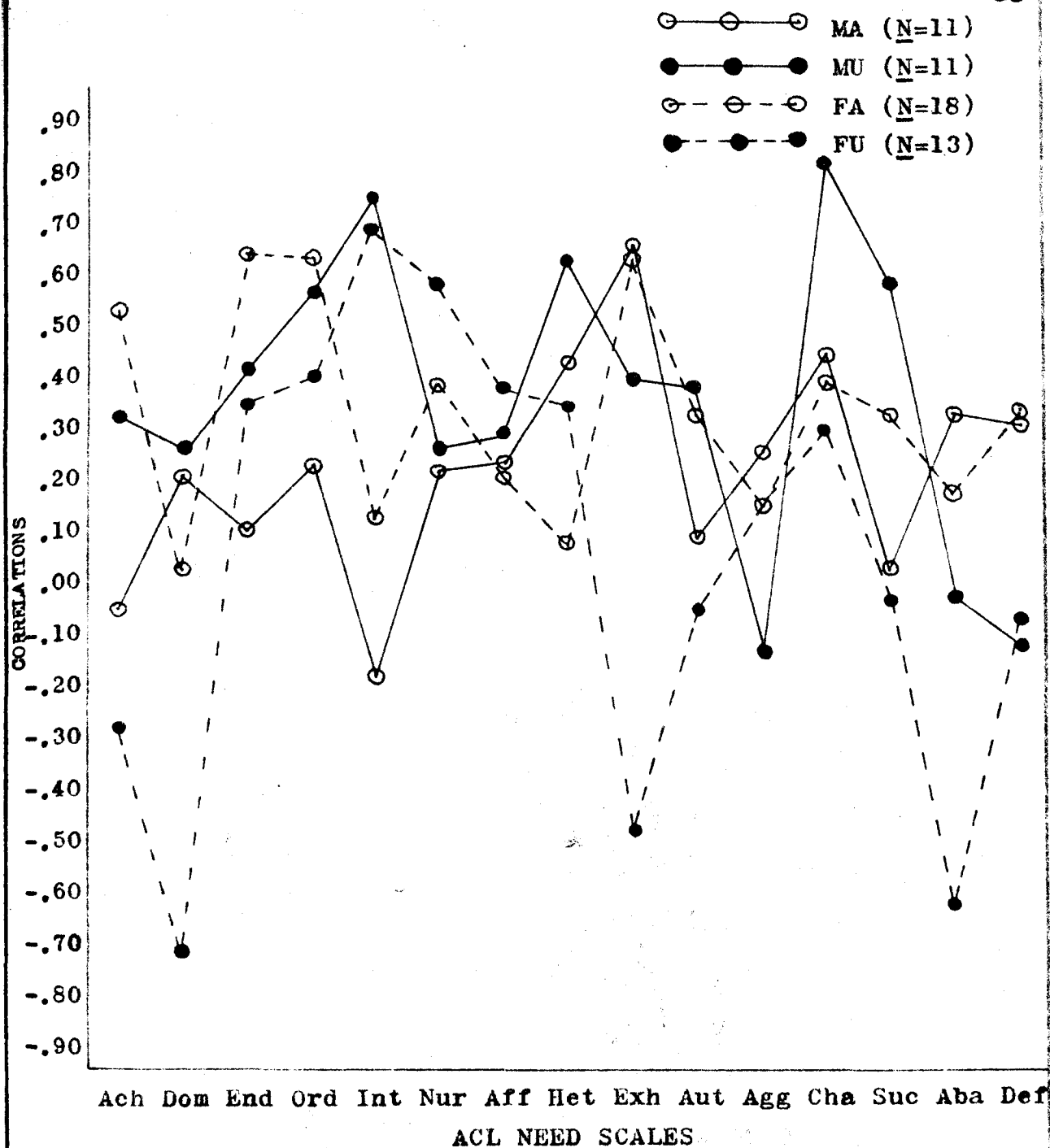
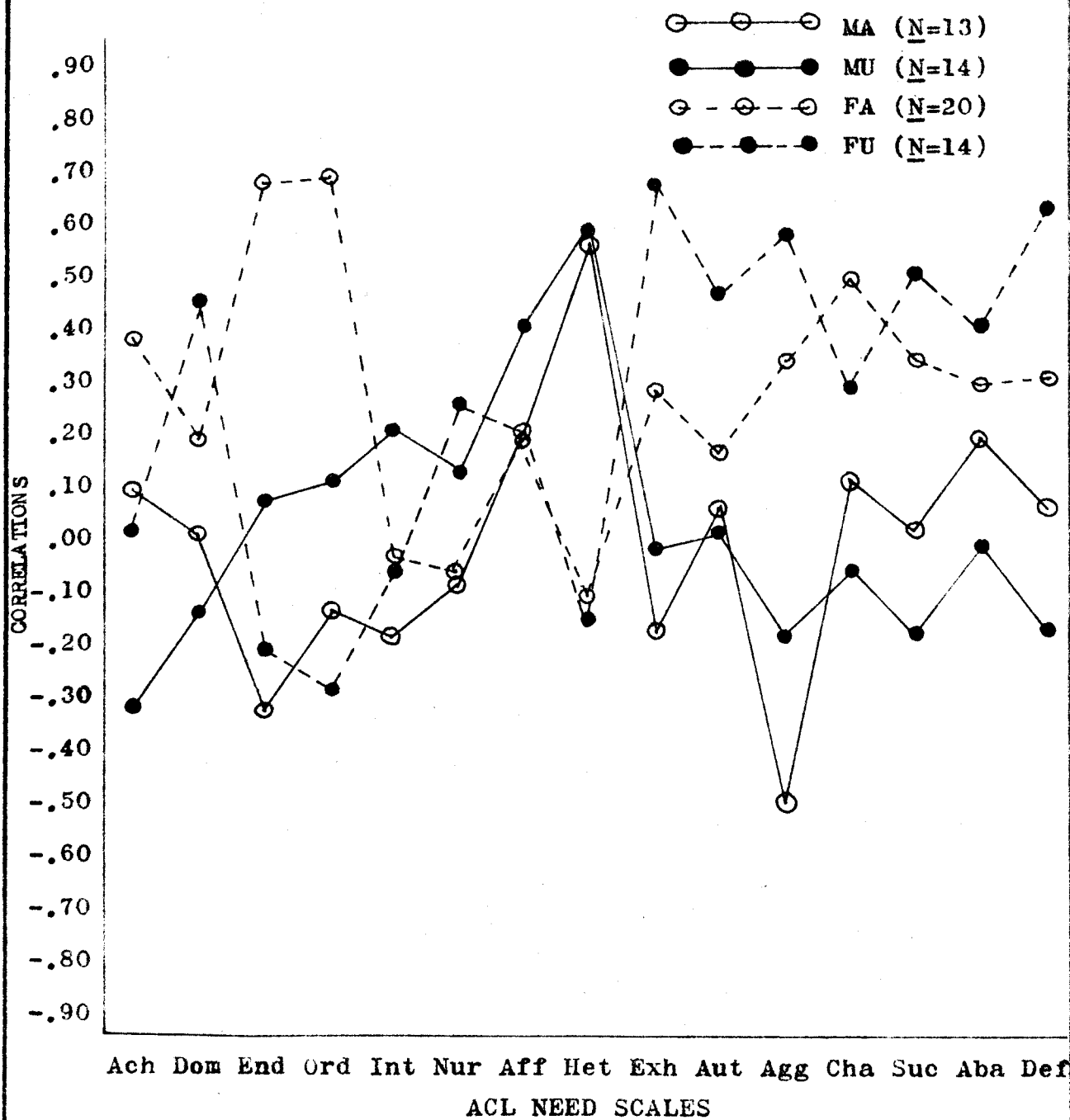


Fig. 3. Correlations between father's self-rating and his rating of child on ACL Need Scales.



Ach Dom End Ord Int Nur Aff Het Exh Aut Agg Cha Suc Aba Def
ACL NEED SCALES

Fig. 4. Correlations between mother's self-rating and her rating of child on ACL Need Scales.

was obtained between the self-perceptions of the fathers of the female underachievers ($N=13$) and their perceptions of their daughters ($r = -.73, p < .01$).

3) Endurance: The fathers of achieving females ($N=18$) rated themselves in common with their daughters ($r = .63, p < .01$). The mothers of the female achievers ($N=20$) also rated themselves in common with their daughters ($r = .66, p < .01$).

4) Order: The fathers of female achievers ($N=18$) perceived themselves to be similar to their daughters ($r = .61, p < .01$). The mothers of the female achievers ($N=20$) also perceived themselves to be similar to their daughters ($r = .67, p < .01$).

5) Intraception: The fathers of the underachieving males ($N=11$) perceived themselves to be like their sons ($r = .74, p < .01$). The fathers of the underachieving females ($N=13$) rated themselves in common with their daughters ($r = .66, p < .02$).

6) Nurturance: The fathers of the underachieving females ($N=13$) perceived themselves as being similar to their daughters ($r = .56, p < .05$).

7) Affiliation: No significant correlations were obtained between the parents' ratings of themselves with their ratings of their children.

8) Heterosexuality: The fathers ($N=11$) and the mothers ($N=14$) of the male underachievers rated themselves in common with their sons ($r = .62, p < .05$; $r = .58, p < .05$ respectively).

9) Exhibition: The fathers of the male achievers ($N=11$) rated themselves in common with their ratings of their sons ($r=.64, p<.05$). The fathers of the achieving females ($N=18$) perceived themselves like they perceived their daughters ($r=.63, p<.01$). The mothers of the underachieving females ($N=14$) rated themselves like they rated their daughters ($r=.66, p<.02$).

10) Autonomy: No significant correlations were obtained between the parents' self-ratings and their ratings of their children.

11) Aggression: The mothers of the female under-achievers ($N=14$) rated themselves in common with their ratings of their daughters ($r=.57, p<.05$).

12) Change: The fathers of the male underachievers ($N=11$) perceived themselves like they perceived their sons ($r=.80, p<.01$). The mothers of the female achievers ($N=20$) rated themselves in common with their ratings of their daughters ($r=.49, p<.05$).

13) Succorance: No significant correlations were obtained between the parents' self-ratings and their ratings of their children.

14) Abasement: A significant negative correlation was obtained between the self-perceptions of the fathers of the female underachievers ($N=13$) and their perceptions of their daughters ($r=-.64, p<.02$).

15) Deference: The mothers of the female under-

achievers ($N=14$) rated themselves in common with their ratings of their daughters ($r=.64$, $p<.02$).

Table 15 shows a measure of parent-child identification in the self-perceptions of each group — the student's self-perceptions correlated with the self-perceptions of each parent. From the test procedure, it might be argued that this measure of identification is the most objective, for both student and parent groups would have most likely not perceived the intent of the investigation in this measure. On the previous two measures of parent-child identification the students and parents were asked to rate themselves along with their parents or children respectively. Thus the measures of identification as reported on Tables 13 and 14 are perceived indices of identification with the possibility of being open to errors of subjectivity. But in measuring the self-perceptions of the student groups with the self-perceptions of the parents, as shown on Table 15, the index of identification becomes more real than perceived — more objective than subjective.

Figure 5 and Figure 6 are presented showing the magnitude of the correlations between the students' self-ratings and the self-ratings of the parents. Since significant correlations were not obtained on all the ACL Need Scales, only those scales are listed where significance at the 5 per cent level of confidence was obtained.

1) Intraception: The self-perceptions of the fathers ($N=11$) were highly correlated with the self-perceptions of the

Table 15

Correlations Between Child's Rating of Self And
Parents' Ratings of Themselves On ACL Need Scales

ACL Need Scales	Child To Self:: Father To Self (C-C::F-F)				Child To Self:: Mother To Self (C-C::M-M)			
	MA	MU	FA	FU	MA	MU	FA	FU
	(N=11)	(N=11)	(N=18)	(N=13)	(N=13)	(N=14)	(N=20)	(N=14)
Achievement	-.46	.29	-.02	.11	.52	-.49	-.15	.20
Dominance	-.24	.36	.01	.08	.50	-.38	.03	.18
Endurance	.05	-.03	.09	.10	.24	-.31	.22	.23
Order	.07	-.09	.05	.03	.17	-.22	.06	.48
Intracception	.99***	-.38	.45	-.08	.07	.17	.08	.19
Nurturance	.39	-.56	.52*	-.17	-.48	.08	-.18	.22
Affiliation	.54	-.51	.15	-.14	-.00	.02	.06	.18
Heterosex.	.21	-.25	-.02	.02	.15	.24	.35	-.12
Exhibition	.11	.17	.12	.23	.59*	.04	.16	.56*
Autonomy	.08	-.58	.19	.21	.12	.28	.29	.27
Aggression	.80**	-.20	.21	-.11	.07	.31	.24	.42
Change	.33	-.06	.18	.51	.59*	.25	.07	.26
Succorance	-.52	.02	.01	-.32	.32	.18	-.19	-.13
Abasement	-.21	.44	-.07	-.06	.39	.12	.02	.57*
Deference	.17	-.35	-.03	-.01	.34	.50	.11	.69**

* = $p < .05$

** = $p < .01$

*** = $p < .001$

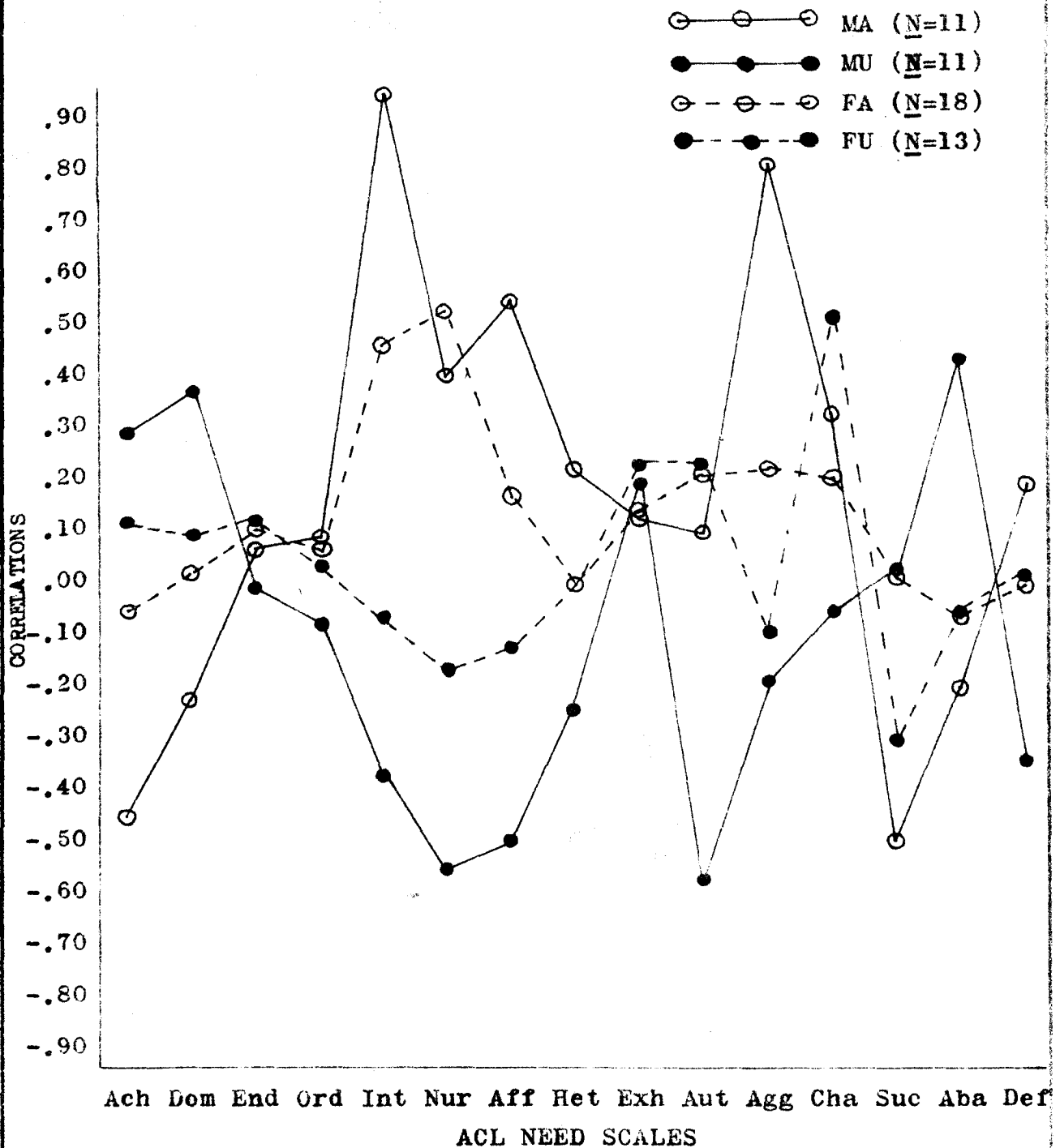


Fig. 5. Correlations between father's self-ratings and child's self-ratings on ACL Need Scales.

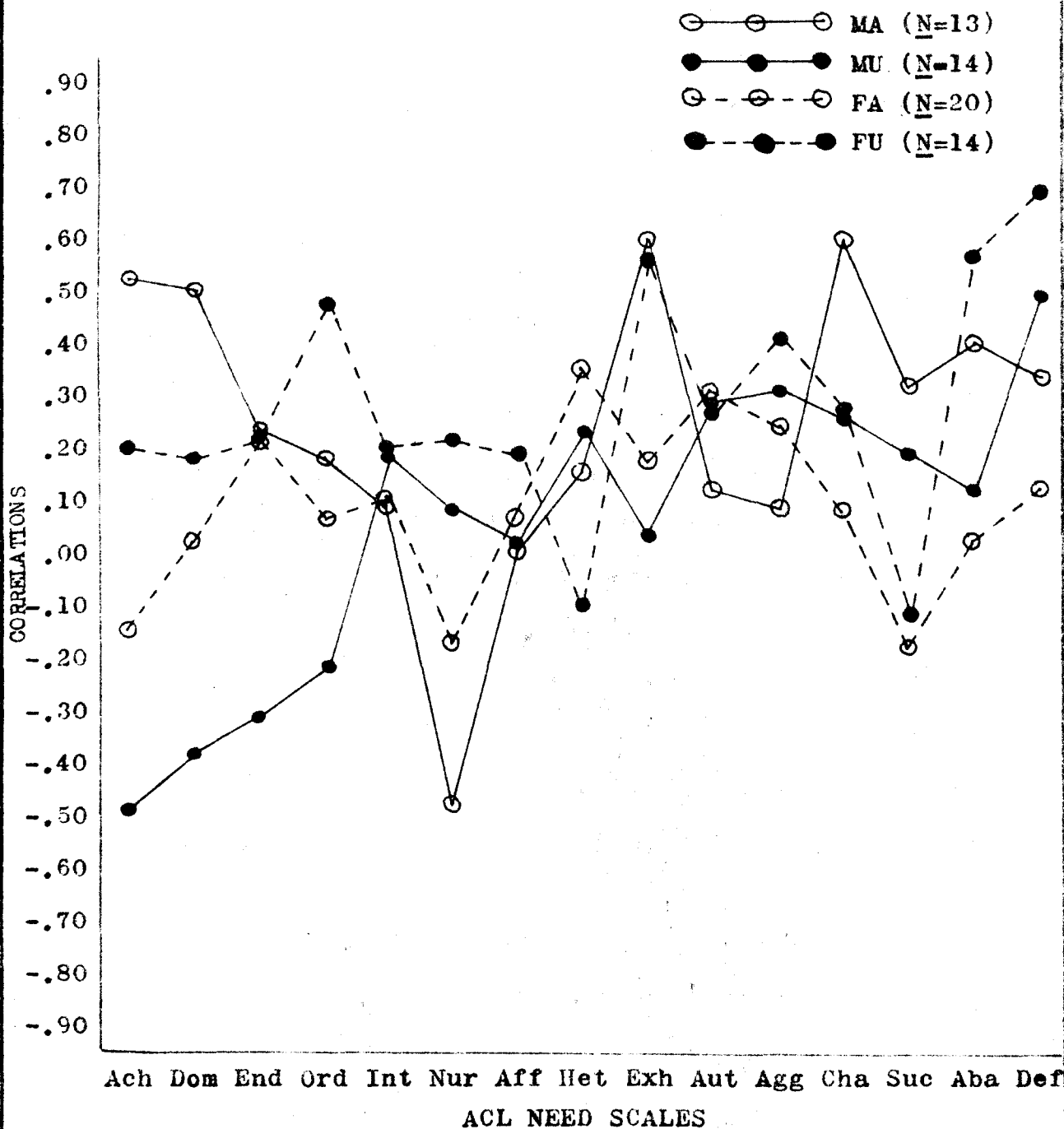


Fig. 6. Correlations between mother's self-ratings and child's self-ratings on ACL Need Scales.

male achievers ($\underline{r} = .99, p < .001$).

2) Nurturance: The self-perceptions of the fathers ($\underline{N} = 18$) were correlated with the self-perceptions of their achieving daughters ($\underline{r} = .52, p < .05$).

3) Exhibition: The self-ratings of the mothers ($\underline{N} = 13$) were correlated with the self-ratings of their achieving sons ($\underline{r} = .59, p < .05$). The mothers' self-ratings ($\underline{N} = 14$) were also correlated with the self-ratings of their underachieving daughters ($\underline{r} = .56, p < .05$).

4) Aggression: The self-perceptions of the fathers ($\underline{N} = 11$) were correlated with the self-perceptions of their achieving sons ($\underline{r} = .80, p < .01$).

5) Change: The self-perceptions of the mothers ($\underline{N} = 13$) were correlated with the self-perceptions of their achieving sons ($\underline{r} = .59, p < .05$).

6) Abasement: The self-ratings of the mothers ($\underline{N} = 14$) were correlated with the self-ratings of their underachieving daughters ($\underline{r} = .57, p < .05$).

7) Deference: The self-ratings of the mothers ($\underline{N} = 14$) were correlated with the self-ratings of their underachieving daughters ($\underline{r} = .69, p < .01$).

Because the many significant correlations obtained on the three measures of identification varied from one another, it was decided that if there was agreement for the groups on two or more of the three measures, a valid index of identification would be present. Thus if there was a significant correlation

between the child's self-perceptions and the child's perception of the father on a certain ACL scale, and if, on the same scale, the father's self-perceptions were significantly correlated with his perceptions of his son, then agreement would exist in the perception of father to son and son to father yielding cross-validation of identification measures. A test of homogeneity was performed between the significant correlations obtained on two measures of identification for the achievement groups on the ACL Need Scales. Because of the large number of tests which were performed over the various measures of identification, only those correlations which were found to be significantly in agreement with one another are reported as shown on Table 16. Significant agreement in the perceptions of child to parent and parent to child over two measures of identification was found on the following Need Scales:

1) Achievement: The female achievers ($N=34$) and their fathers ($N=18$) agreed significantly in their perceptions of one another ($r = .42$, $p < .05$) indicating identity over the two measures.

2) Endurance: The female achievers ($N=34$) and their mothers ($N=20$) agreed significantly in their perceptions of one another ($r = .62$, $p < .01$).

3) Order: The female achievers ($N=34$) again were found to identify with their mothers ($N=20$) in the agreement of their perceptions to one another. ($r = .49$, $p < .05$).

4) Intraception: The male underachievers ($N=27$) and

Table 16

Agreement of Significant Correlations
In Measuring Parent-Child Identification
On Various ACL Need Scales

ACL Need Scale	Group	Comparisons	N	r	Estimate of Com. Pop. r
Achievement	FA	C-C::C-F	34	.37*	.42*
		F-F::F-C	18	.52*	
Endurance	FA	C-C::C-M	34	.58***	.62**
		M-M::M-C	20	.66**	
Order	FA	C-C::C-M	34	.37*	.49*
		M-M::M-C	20	.67**	
Intracception	MU	C-C::C-F	27	.43*	.52*
		F-F::F-C	11	.74**	
Intracception	FU	C-C::C-F	18	.56*	.61*
		F-F::F-C	13	.66*	
Nurturance	FA	C-C::C-F	34	.58***	.56**
		C-C::F-F	18	.52*	
Nurturance	FU	C-C::C-F	18	.67**	.63**
		F-F::F-C	13	.56*	
Heterosexuality	MU	C-C::C-F	27	.66***	.65**
		F-F::F-C	11	.62*	
Heterosexuality	MU	C-C::C-M	27	.50**	.52*
		M-M::M-C	14	.58*	
Exhibition	MA	C-C::C-F	23	.62**	.63**
		F-F::F-C	11	.64*	
Exhibition	FU	M-M::M-C	14	.66*	.61*
		C-C::M-M	14	.56*	
Deference	FU	M-M::M-C	14	.64*	.67**
		C-C::M-M	14	.69**	

* = $p < .05$ ** = $p < .01$ *** = $p < .001$

their fathers ($N=11$) agreed significantly in their perceptions of one another ($r = .52, p < .05$). The female underachievers ($N=18$) and their fathers ($N=13$) also identified with one another ($r = .61, p < .05$).

5) Nurturance: The female achievers ($N=34$) were found to be identified with their fathers ($N=18$) over two measures of identification ($r = .56, p < .01$). The female underachievers ($N=18$) and their fathers ($N=13$) also identified with one another ($r = .63, p < .01$).

6) Heterosexuality: The male underachievers ($N=27$) and their fathers ($N=11$) agreed significantly with one another ($r = .65, p < .01$) as did the male underachievers ($N=27$) and their mothers ($N=14$) ($r = .52, p < .05$).

7) Exhibition: Significant agreement in the perceptions of one another was found between male achievers ($N=23$) and their fathers ($N=11$) ($r = .63, p < .01$). Agreement was also discovered between the female underachievers ($N=14$) and their mothers ($N=14$) ($r = .61, p < .05$).

8) Deference: Agreement of correlations on two measures of identification was also found between the female underachievers ($N=14$) and their mothers ($N=14$) ($r = .67, p < .01$).

In attempting to determine the significance of differences in correlations between achieving and underachieving groups of the same sex, the r to z transformation technique was used. Since few significant differences were obtained between the male achievement groups and between the female achievement groups on

all three measures of identification, it was decided to report only the significant differences found on all three measures of identification thus avoiding numerous tables which would show one or fewer differences to be significant. Table 17 reports on the significance of differences as found between the male achievers and the male underachievers on the ACL Need Scales. As reported, the significance of differences is on one or another measure of identification. It is noted, however, that except in two instances the differences between the male achievement groups were found on the measure of identification which compared the self-perceptions of the students with the self-perceptions of the parents — thought to be possibly the most objective index of identification. Significance of differences were found between the male achievement groups on the following ACL Need Scales:

1) Achievement: The male achievers ($N=13$) were found to be significantly more identified with their mothers ($N=13$) than were the male underachievers ($N=14$) with their mothers ($N=14$) as shown by the self-perceptions of the students correlated with the self-perceptions of the mothers. ($z= 2.55, p < .02$).

2) Dominance: In comparing the self-perceptions of the students with the self-perceptions of the mothers, it was discovered that the identity of the male achievers ($N=13$) with the mothers was significantly greater than was the case for the male underachievers ($N=14$) ($z= 2.17, p < .05$).

3) Intraception: In comparing the fathers' perceptions of themselves with their perceptions of their sons, it was

Table 17

Significance of r 's Between Rankings of Adjectives
 Within Groups on Individual ACL Need Scales
 And Significance of Difference or r 's Between
 Groups of Male Achievers and Underachievers

ACL Need Scales	Group	Comparisons	<u>N</u>	<u>r</u>	<u>z</u>
Achievement	MA	C-C::M-M	13	.52	2.55*
	MU	C-C::M-M	14	-.49	
Dominance	MA	C-C::M-M	13	.50	2.17*
	MU	C-C::M-M	14	-.38	
Intracception	MA	F-F::F-C	11	-.19**	2.28*
	MU	F-F::F-C	11	.74	
Intracception	MA	C-C::F-F	11	.99***	5.47***
	MU	C-C::F-F	11	-.38	
Nurturance	MA	C-C::F-F	11	.39	2.09*
	MU	C-C::F-F	11	-.56	
Affiliation	MA	C-C::F-F	11	.54	2.32*
	MU	C-C::F-F	11	-.51	
Exhibition	MA	C-C::C-F	23	.62**	2.55*
	MU	C-C::C-F	27	-.05	
Aggression	MA	C-C::F-F	11	.80**	2.61*
	MU	C-C::F-F	11	-.20	

* = $p < .05$

** = $p < .01$

*** = $p < .001$

found that the fathers ($N=11$) of the underachieving males identify significantly more with their sons than do the fathers ($N=11$) of the achieving males ($z= 2.28, p < .05$). However, in comparing the self-perceptions of the students with the self-perceptions of the fathers, there was found a greater significance in similarity of the male achievers ($N=11$) with their fathers than the male underachievers ($N=11$) ($z= 5.47, p < .001$). This apparent contradiction alone seems to suggest that the utilization of only one measure of identification does not give a valid index of identity.

4) Nurturance: Male achievers ($N=11$) were found to be significantly more similar to their fathers than were the male underachievers ($N=11$) as measured by the self-perceptions of the students with the self-perceptions of the fathers ($z= 2.09, p < .05$).

5) Affiliation: Male achievers ($N=11$) were also found to be significantly more similar to their fathers than were the male underachievers ($N=11$) as measured by the self-perceptions of the students with the self-perceptions of the fathers ($z= 2.32, p < .05$).

6) Exhibition: In comparing the students' self-perceptions with their perceptions of their fathers, it was found that the achieving males ($N=23$) viewed themselves more similar to their fathers than did the underachievers ($N=27$) ($z= 2.55, p < .02$).

7) Aggression: Male achievers ($N=11$) were found to

be significantly more similar to their fathers than were the male underachievers ($N=11$) as measured by the self-perceptions of the students with the self-perceptions of the fathers ($z= 2.61$, $p < .02$).

In general, it is seen that on all scales except one, and that one is contradicted, where significant differences have been found the male achievers were more similar to one or the other parent than were the male underachievers.

Table 18 reports on the significance of differences as found between the female achievers and the female underachievers on the ACL Need Scales. Again to facilitate matters only those differences are reported which were found to be significant across all three measures of identification. However, in the case of the female groups all the differences which were found to be significant were discovered on the measure of identification comparing the self-perceptions of the parents with their, the parents', perceptions of their daughters. The r to z transformation was performed to determine the significance of difference between the female achievement groups. Significant differences were found on the following ACL Need Scales:

1) Achievement: The fathers ($N=18$) of the female achievers perceived themselves to be significantly more similar to their daughters than did the fathers of the female underachievers ($z= 2.13$, $p < .05$).

2) Dominance: A significant negative correlation ($r= -.73$, $p < .01$) was found between the self-perceptions of the

Table 18

Significance of r 's Between Rankings of Adjectives
 Within Groups on Individual ACL Need Scales
 And Significance of Difference of r 's Between
 Groups of Female Achievers and Underachievers

ACL Need Scales	Group	Comparisons	N	r	z
Achievement	FA	F-F::F-C	18	.52*	2.13*
	FU	F-F::F-C	13	-.29	
Dominance	FA	F-F::F-C	18	.02**	2.33*
	FU	F-F::F-C	13	-.73**	
Endurance	FA	M-M::M-C	20	.66**	2.56*
	FU	M-M::M-C	14	-.22	
Order	FA	M-M::M-C	20	.67**	2.88**
	FU	M-M::M-C	14	-.29	
Exhibition	FA	F-F::F-C	18	.63**	3.12**
	FU	F-F::F-C	13	-.49	
Abasement	FA	F-F::F-C	18	.15*	2.23*
	FU	F-F::F-C	13	-.64*	

* = $p < .05$

** = $p < .01$

fathers ($N=13$) of female underachievers and their perceptions of their daughters. While no significance is reported between the self-perceptions of the fathers ($N=18$) of female achievers and their perceptions of their daughters, a significant difference was found between the ratings of the two groups of fathers ($z = 2.33, p < .05$). This finding suggests that the fathers of the underachieving females perceived a significant absence of similarity between themselves and their daughters as opposed to the fathers of the achieving females.

3) Endurance: The mothers ($N=20$) of the female achievers perceived themselves to be significantly more similar to their daughters than did the mothers ($N=14$) of the female underachievers ($z = 2.56, p < .02$).

4) Order: The mothers ($N=20$) of the female achievers perceived themselves to be significantly more similar to their daughters than did the mothers ($N=14$) of the female underachievers ($z = 2.88, p < .01$).

5) Exhibition: The fathers ($N=18$) of the female achievers perceived themselves to be significantly more similar to their daughters than did the fathers ($N=13$) of the female underachievers. ($z = 3.12, p < .01$).

6) Abasement: A significant negative correlation ($r = -.64, p < .02$) was found between the self-perceptions of the fathers ($N=13$) of female underachievers and their perceptions of their daughters. While no significance is reported between the self-perceptions of the fathers ($N=18$) of female achievers and

their perceptions of their daughters, a significant difference was found between the ratings of the two groups of fathers ($\underline{z} = 2.23$, $p = .05$). This finding suggests that the fathers of the underachieving females perceived a significant absence of similarity between themselves and their daughters as opposed to the father of the achieving females.

In order to determine if there were any significant differences between the correlations of the sexes on any one index of identification, the r to z transformation was performed. Again only those differences are reported which were found to be significant. The differences are given over all three measures of identification in order to simplify matters.

Table 19 reports on the significance of differences as found between the correlations of the male achievers and the female achievers. Significant differences were found on the following ACL Need Scales:

1) Endurance: The mothers ($N=20$) of the female achievers perceived themselves to be significantly more similar to their daughters than did the mothers ($N=13$) of the male achievers ($\underline{z} = 3.25$, $p < .01$) perceive themselves similar to their sons.

2) Order: The mothers ($N=20$) of the female achievers perceived themselves to be significantly more similar to their daughters than did the mothers ($N=13$) of the male achievers ($\underline{z} = 2.42$, $p < .05$) perceive themselves similar to their sons.

3) Intraception: The female achievers ($N=34$) rated

Table 19

Significance of r 's Between Rankings of Adjectives
 Within Achieving Male and Female Groups on Individual
 ACL Need Scales and Significance of Difference of the r 's

ACL Need Scales	Group	Comparisons	N	r	z
Endurance	MA	M-M::M-C	13	-.46**	3.25**
	FA	M-M::M-C	20	.66	
Order	MA	M-M::M-C	13	-.15**	2.42*
	FA	M-M::M-C	20	.67	
Intracception	MA	C-C::C-F	23	-.10**	2.13*
	FA	C-C::C-F	34	.47	
Intracception	MA	C-C::C-M	23	.07***	2.23*
	FA	C-C::C-M	34	.61	
Intracception	MA	C-C::F-F	11	.99***	2.66*
	FA	C-C::F-F	18	.45	
Aggression	MA	M-M::M-C	13	-.51	2.31*
	FA	M-M::M-C	20	.34	
Succorance	MA	C-C::C-F	23	.17***	2.05*
	FA	C-C::C-F	34	.64	
Abasement	MA	C-C::C-F	23	.63**	2.42*
	FA	C-C::C-F	34	.05	

* = $p < .05$
 ** = $p < .01$
 *** = $p < .001$

themselves and their mothers as being significantly more similar than the male achievers ($N=23$) rated themselves as being similar to their mothers ($z= 2.23, p < .05$). On the same scale the female achievers also perceived themselves and their fathers to be significantly more similar than the male achievers rated themselves as being similar to their fathers ($z= 2.13, p < .05$). However, the male achievers ($N=11$) were found to be significantly more similar to their fathers than the female achievers ($N=18$) to their fathers as measured by the self-perceptions of the students with the self-perceptions of the fathers ($z= 2.66, p < .02$). This scale was found to yield contradictory results between the male achievers and the male underachievers as shown previously on Table 17.

4) Aggression: The mothers ($N=20$) of the female achievers perceived themselves to be significantly more similar to their daughters than did the mothers ($N=13$) of the male achievers ($z= 2.31, p < .05$) perceive themselves similar to their sons.

5) Succorance: The female achievers ($N=34$) perceived themselves to be significantly more similar to their fathers than did the male achievers ($N=23$) ($z= 2.05, p < .05$).

6) Abasement: The male achievers ($N=23$) perceived themselves to be significantly more similar to their fathers than did the female achievers ($N=34$) perceive similarity to their fathers ($z= 2.42, p < .02$).

Significant differences were also found between the

correlations of the male and female underachieving groups of students. Table 20 presents the only significant differences which were obtained over the three measures of identification on the ACL Need Scales. The following ACL Need Scales yielded significant differences:

1) Dominance: A significant negative correlation ($r = -.73$, $p < .01$) was found between the self-perceptions of the fathers ($N=13$) of female underachievers and their perceptions of their daughters. While no significance is reported between the self-perceptions of the fathers ($N=11$) of male underachievers and their perceptions of their sons, a significant difference was found between the correlations of the two groups of fathers ($z = 2.50$, $p < .05$). This finding suggests that the fathers of the underachieving females perceived a significant absence of similarity between themselves and their daughters as opposed to the fathers of the underachieving males.

2) Deference: The mothers ($N=14$) of the female under-achievers perceived themselves to be significantly more similar to their daughters than did the mothers ($N=14$) of the male under-achievers ($z = 2.18$, $p < .05$) perceive themselves similar to their sons.

A final measure of parent-child identification was attempted in order to ascertain a more global or general view of identification. The Chi Square test of frequency comparisons was used to determine the significance of differences between achievement groups by sex with respect to the number of

Table 20

Significance of \underline{r} 's Between Rankings of Adjectives
Within Underachieving Male and Female Groups on Individual
ACL Need Scales And Significance of Difference of the \underline{r} 's

ACL Need Scales	Group	Comparisons	\underline{N}	\underline{r}	\underline{z}
Dominance	MU	F-F::F-C	11	.25	2.50*
	FU	F-F::F-C	13	-.73**	
Deference	MU	M-M::M-C	14	-.17*	2.18*
	FU	M-M::M-C	14	.64	

* = $p < .05$

** = $p < .01$

adjectives attributed by the students exclusively to themselves and in common with each of their parents. Since there are 300 adjectives on the ACL, agreement by 50 per cent of the students on each adjective was considered the criterion. Each cell in the Chi Square test was thus composed of the number of adjectives, out of a possible 300, upon which 50 per cent of the particular sample subjects were in agreement.

Table 21 presents an index of student identification with their fathers as seen by the differences between the achievement groups by sex on the number of adjectives attributed by the students exclusively to themselves and in common with their fathers. Because of the small expected frequencies in some of the cells, Fisher's Exact Test of Probabilities had to be used to measure significance between the male achievement groups while Yates' Correction for Continuity had to be used to measure significance between the female achievement groups. Accordingly it is shown that a significant difference was obtained between the male achievement groups but not between the female achievement groups. Male achievers perceived significantly more similarity of themselves ($N=23$) to their fathers than did the male underachievers ($N=27$) as judged by their attributing more adjectives in common with their fathers and fewer adjectives exclusive to themselves ($p < .003$).

Table 22 presents an index of student identification with their mothers as seen by the differences between achievement groups by sex on the number of adjectives attributed by the

Table 21

Comparison Between Achiever and Underachiever
Groups of the Number of Adjectives Attributed
Exclusively to Self With the Number of Adjectives
Attributed in Common to Father and Self

Groups	Exclusive To Self	Common to Self and Father	χ^2	Fisher p
Male Achiever	1	46		.003
Male Underachiever	7	17		
Female Achiever	5	61	.001	
Female Underachiever	5	50		

Table 22

Comparison Between Achiever and Underachiever
Groups of the Number of Adjectives Attributed
Exclusively to Self With the Number of Adjectives
Attributed in Common to Mother and Self

Groups	Exclusive To Self	Common to Self and Mother	χ^2	Fisher p
Male Achiever	6	48	5.37*	1.03
Male Underachiever	9	16		
Female Achiever	2	60		
Female Underachiever	3	61		

* = $p < .05$

students exclusively to themselves and in common with their mothers. Results show that the male achievers ($N=23$) described themselves as significantly more similar to their mothers ($\chi^2 = 5.37, p < .05$) than the male underachievers ($N=27$). No significant difference was found between the female achievers and the female underachievers in their description of similarity to their mothers.

The Chi Square test was also used to determine significant differences between the fathers and the mothers of each of the four achievement groups with respect to the number of adjectives attributed exclusively to themselves and the number attributed to child and self in common. Table 23 presents an index of the fathers' identification with the students. Although significance at the 5 per cent level of confidence was not obtained between any of the achievement groups, there was a tendency for the fathers ($N=11$) of the male achievers to see themselves as being more similar to their sons than the fathers ($N=11$) of the male underachievers (Fisher $p < .07$). No significant difference was found between the fathers of the female achievement groups in their descriptions of themselves in common with their daughters and exclusive of themselves.

Table 24 presents an index of the mothers' identification with the students. No significant difference was found between the male achievement groups or between the female achievement groups when considering the similarity of the mothers to the students judged by the mothers' descriptions in common with

Table 23

Comparison Between Achiever and Underachiever
Groups of the Number of Adjectives Attributed
By Fathers Exclusively to Themselves And In
Common With Their Children and Themselves

Groups	Exclusive To Self	Common To Self and Child	χ^2	Fisher p
Male Achiever	2	30		.066
Male Underachiever	5	11		
Female Achiever	10	35	.060	
Female Underachiever	10	27		

Table 24

Comparison Between Achiever and Underachiever
Groups of the Number of Adjectives Attributed
By Mothers Exclusively to Themselves And In
Common With Their Children and Themselves

Groups	Exclusive To Self	Common To Self and Child	χ^2	Fisher p
Male Achiever	7	30	.024	1.064
Male Underachiever	9	36		
Female Achiever	0	36		
Female Underachiever	1	40		

themselves and exclusive to themselves.

The Chi Square test of frequency comparisons was also used to determine the significance of differences between the sexes by achievement group. Table 25 presents an index of student identification with their fathers by the differences between the male and the female achievement groups on the number of adjectives attributed by the students exclusively to themselves and in common with their fathers. A significant difference was obtained between the male underachievers and the female underachievers ($\chi^2 = 5.21$, $p < .05$). The female underachievers ($N=18$) perceived significantly more similarity of themselves to their fathers than did the male underachievers ($N=27$) judged by their attributing more adjectives in common with their fathers and fewer adjectives exclusive to themselves. No significant difference was obtained between the male and the female achieving groups.

Table 26 presents an index of student identification with their mothers by the differences between the male and the female achievement groups on the number of adjectives attributed by the students exclusively to themselves and in common with their mothers. A significant difference was found between the male and the female underachievers with the use of Fisher's Exact Test of Probabilities ($p < .001$). The female underachievers ($N=18$) perceived significantly more similarity of themselves to their mothers than did the male underachievers ($N=27$) judged by their attributing more adjectives in common with their mothers and

Table 25

Comparison Between Male and Female Achievement
Groups of the Number of Adjectives Attributed
Exclusively to Self With the Number of Adjectives
Attributed in Common to Father and Self

Groups	Exclusive To Self	Common to Self and Father	χ^2	Fisher p
Male Achiever	1	46		
Female Achiever	5	61		.404
Male Underachiever	7	17		
Female Underachiever	5	50	5.21*	

* = $p < .05$

Table 26

Comparison Between Male and Female Achievement
Groups of the Number of Adjectives Attributed
Exclusively to Self With the Number of Adjectives
Attributed in Common to Mother and Self

Groups	Exclusive To Self	Common to Self and Mother	χ^2	Fisher p
Male Achiever	6	48		
Female Achiever	2	60		.191
Male Underachiever	9	16		
Female Underachiever	3	61		.001

fewer adjectives exclusive to themselves. No significant difference was obtained between the male and the female achieving groups.

The Chi Square test was also used to determine significant differences between the fathers and between the mothers of the male and female achievement groups with respect to the number of adjectives attributed exclusively to themselves and the number attributed to child and self in common. Table 27 presents an index of the fathers' identification with the students. No significant difference was obtained between the fathers ($N=11$) of the male achievers and the fathers ($N=18$) of the female achievers in their descriptions of themselves in common with their children and exclusive of themselves. Also no significant difference was found between the fathers ($N=11$) of the male underachievers and the fathers ($N=13$) of the female underachievers.

Table 28 presents an index of the mothers' identification with the students. A significant difference was obtained between the mothers ($N=13$) of the male achievers and the mothers ($N=20$) of the female achievers with the use of Fisher's Exact Test of Probabilities ($p < .013$). The mothers of the female achievers perceived significantly more similarity of themselves to their daughters than did the mothers of the male achievers perceive themselves similar to their sons. A significant difference was also obtained between the mothers ($N=14$) of the male underachievers and the mothers ($N=14$) of the female underachievers.

Table 27

Comparison Between Male and Female Achievement
Groups of the Number of Adjectives Attributed
By Fathers Exclusively to Themselves And In
Common With Their Children and Themselves

Groups	Exclusive To Self	Common to Self and Child	$\underline{X^2}$	Fisher p
Male Achiever	2	30	2.51	.0004
Female Achiever	10	35		
Male Underachiever	5	11		
Female Underachiever	10	27		

Table 28

Comparison Between Male and Female Achievement
Groups of the Number of Adjectives Attributed
By Mothers Exclusively to Themselves And In
Common With Their Children and Themselves

Groups	Exclusive To Self	Common to Self and Child	χ^2	Fisher p
Male Achiever	7	30		.013
Female Achiever	0	36		
Male Underachiever	9	36	4.84*	
Female Underachiever	1	40		

* = $p < .05$

($\chi^2 = 4.84, p < .05$). The mothers of the female underachievers perceived significantly more similarity of themselves to their daughters than did the mothers of the male underachievers perceive themselves similar to their sons. With respect to the mothers, it is thus seen that they perceive more similarity to their daughters than to their sons whether the children are achievers or underachievers.

Parent Attitude Survey

In measuring similarities in the child-rearing attitudes of the parents, Pearson product-moment correlation coefficients were computed between the fathers' and the mothers' child-rearing attitudes, and also how they perceived one another's attitudes to be. The r to z transformation was then used to determine the significance of differences in correlations between the achievement groups by sex and between the sexes by achievement group.

Table 29 presents the correlations of the parents' attitudes on the three scales or variables of the PAS and the differences in correlations between the attitudes of the parents of the male achievers and the male underachievers. Significant correlations between parental ratings were obtained on the following PAS scales:

1) Possessive: The fathers (N=9) of the male achievers perceived themselves similar to their wives (r = .68, $p < .05$). The fathers of the male underachievers (N=10) also perceived themselves similar to their wives (r = .73, $p < .05$).

Table 29

Significance of r 's Between Parental Rankings On
PAS Variables And Significance of Difference
of r 's Between Groups of Male Students

Variable	Comparisons	Male Achievers		Male Underachievers		z
		N	r	N	r	
Possessive	F-F::F-M	9	.68*	10	.73*	.19
	F-F::M-M	10	.29	11	.12	.34
	F-F::M-F	9	.59	10	.28	.70
	M-M::M-F	12	.82**	12	.66*	.81
	M-M::F-M	9	-.13	10	-.19	.10
	F-M::M-F	8	.13	9	.18	.08
Dominant	F-F::F-M	9	.51	10	.27	.51
	F-F::M-M	10	-.05	11	.24	.58
	F-F::M-F	9	.34	10	.32	.03
	M-M::M-F	12	.86***	12	.87***	.06
	M-M::F-M	9	-.44	10	-.16	.56
	F-M::M-F	8	-.14	9	-.39	.45
Ignoring	F-F::F-M	9	.17	10	.33	.30
	F-F::M-M	10	.38	11	.57	.49
	F-F::M-F	9	.41	10	.31	.22
	M-M::M-F	12	.95***	12	.58*	2.52*
	M-M::F-M	9	.18	10	-.10	.49
	F-M::M-F	8	.34	9	-.08	.71

* = $p < .05$

** = $p < .01$

*** = $p < .001$

No significant difference was found to exist between the two groups of fathers. The mothers ($N=12$) of the male achievers rated their husbands significantly the same as they rated themselves ($r = .82, p < .01$). The mothers ($N=12$) of the male under-achievers did the same ($r = .66, p < .05$). No significant difference was found between the two groups of mothers.

2) Dominant: The mothers ($N=12$) of the male achievers perceived themselves similar to their husbands ($r = .86, p < .001$). The mothers ($N=12$) of the male underachievers also perceived themselves similar to their husbands ($r = .87, p < .001$). No significant difference was obtained between the groups of mothers.

3) Ignoring: The mothers ($N=12$) of the male achievers perceived themselves similar to their husbands ($r = .95, p < .001$). Likewise the mothers ($N=12$) of the male underachievers viewed themselves as similar to their husbands ($r = .58, p < .05$). A significant difference was obtained between the correlations of the two groups of mothers ($z = 2.52, p < .02$) indicating a greater degree of similarity in the ratings of the mothers of the male achievers.

In general, the mothers rated themselves similar to their ratings of their husbands on all three scales of the PAS. The fathers perceived themselves to be similar to their wives only on the Possessive scale. No other parental ratings were found to be significant as to their child-rearing attitudes in relation to their sons whether they were achievers or underachievers.

Table 30 presents the correlations of the parents' attitudes on the three scales of the PAS and the differences in correlations between the attitudes of the parents of the female achievers and the parents of the female underachievers. Significant correlations between the parental ratings were obtained on the following PAS scales:

1) Possessive: The fathers ($N=14$) of the female achievers perceived themselves similar to their wives in their self-ratings with their ratings of their wives ($r = .99, p < .001$). The fathers ($N=12$) of the female underachievers also rated themselves like they rated their wives ($r = .77, p < .01$). A significant difference existed between the two correlations ($z = 3.65, p < .01$) indicating that the fathers of the female achievers had a greater degree of similarity in their ratings of themselves and their wives than did the fathers of the female underachievers.

The mothers ($N=17$) of the female achievers rated themselves like they rated their husbands ($r = .81, p < .001$) in being possessive of their daughters. The mothers ($N=13$) of the female underachievers did likewise ($r = .87, p < .001$). No significant difference was obtained between the two groups of mothers.

2) Dominant: The fathers ($N=14$) of the female achievers rated themselves like they rated their wives ($r = .78, p < .001$). The fathers ($N=12$) of the female underachievers also did the same ($r = .99, p < .001$). A significant difference existed between the two correlations ($z = 3.55, p < .01$) indicating

Table 30

Significance of r 's Between Parental Rankings On
PAS Variables And Significance of Difference
of r 's Between Groups of Female Students

Variable	Comparisons	Female Achievers		Female Underachievers		z
		N	r	N	r	
Possessive	F-F::F-M	14	.99***	12	.77**	3.65**
	F-F::M-M	17	.22	13	.20	.05
	F-F::M-F	16	.43	12	.14	.75
	M-M::M-F	17	.81***	13	.87***	.52
	M-M::F-M	14	.31	12	.49	.48
	F-M::M-F	14	.52	12	.45	.19
Dominant	F-F::F-M	14	.78***	12	.99***	3.55**
	F-F::M-M	17	.34	13	.65*	1.00
	F-F::M-F	16	.13	12	.59*	1.26
	M-M::M-F	17	.76***	13	.99***	3.72***
	M-M::F-M	14	.52	12	.80**	1.15
	F-M::M-F	14	.25	12	.66**	1.21
Ignoring	F-F::F-M	14	.95***	12	.88***	.97
	F-F::M-M	17	.32	13	.01	.82
	F-F::M-F	16	.19	12	-.07	.59
	M-M::M-F	17	.90***	13	.93***	.40
	M-M::F-M	14	.04	12	.29	.58
	F-M::M-F	14	-.07	12	.10	.39

* = $p < .05$
 ** = $p < .01$
 *** = $p < .001$

that the fathers of the female underachievers perceived a greater degree of similarity with their wives in being dominant of their daughters than did the fathers of the female achievers.

The self-ratings of both the fathers and the mothers of the female underachievers ($N=13$) were found to be significantly intercorrelated ($r = .65$, $p < .05$). However, no significant difference was found between the ratings of these parents and the parents' self-ratings of the female achieving group.

A significant correlation ($r = .59$, $p < .05$) also was found between the self-ratings of the fathers ($N=12$) of the female underachievers and their spouses' ratings of them, but no significant difference of correlations existed between these parental ratings and those parental ratings of the female achievers.

The mothers ($N=17$) of the female achievers rated themselves like they rated their husbands ($r = .76$, $p < .001$). The mothers ($N=13$) of the female underachievers also did the same ($r = .99$, $p < .001$). A significant difference existed between the two correlations ($z = 3.72$, $p < .001$) indicating that the mothers of the female underachievers perceived a greater degree of similarity with their husbands in being dominant of their daughters than did the mothers of the female achievers.

A significant correlation ($r = .80$, $p < .01$) was found to exist between the self-ratings of the mothers ($N=12$) of the female underachievers and their spouses' ratings of them, but no significant difference existed between these ratings and those ratings of the mothers of the female achievers.

A significant correlation ($r = .66$, $p < .01$) also was found between the ratings of each parent ($N=12$) of the female under-achievers with one another. No significant difference existed between the parental groups on this comparison.

3) Ignoring: The parents of both achievement groups of females rated themselves in common with their spouses at significant levels: the fathers ($N=14$) of the achievers in their self-ratings with their ratings of their wives ($r = .95$, $p < .001$), the fathers of the underachievers ($N=12$) in their self-ratings with their ratings of their wives ($r = .88$, $p < .001$), the mothers ($N=17$) of the female achievers in their self-ratings with their ratings of their husbands ($r = .90$, $p < .001$), and the mothers ($N=13$) of the underachievers in their self-ratings with their ratings of their husbands ($r = .93$, $p < .001$). No significant differences between the parental groups were recorded however.

In general, the most remarkable aspect of the correlations and of the significance of correlations between the parental groups on the PAS was the fact that the majority of them existed in the comparisons of each parent's self-ratings with his or her ratings of the respective spouse.

In order to measure the differences between correlations of the parental child-rearing attitudes in relation to the sex of the child, the r to z transformation was used between the parental ratings with respect to the sexes of the student groups. Table 31 presents the correlations between the parental rankings on the PAS scales in relation to the male and the female

Table 31

Significance of r 's Between Parental Rankings On
PAS Variables In Relation To Male and Female Achievers
And Significance of Difference of the r 's

Variable	Comparisons	Male Achievers		Female Achievers		z
		N	r	N	r	
Possessive	F-F::F-M	9	.68*	14	.99***	3.59**
	F-F::M-M	10	.29	17	.22	.16
	F-F::M-F	9	.59	16	.43	.44
	M-M::M-F	12	.82**	17	.81***	.07
	M-M::F-M	9	-.13	14	.31	.89
	F-M::M-F	8	.13	14	.52	.83
Dominant	F-F::F-M	9	.51	14	.78***	.95
	F-F::M-M	10	-.05	17	.34	.88
	F-F::M-F	9	.34	16	.13	.45
	M-M::M-F	12	.86***	17	.76***	.70
	M-M::F-M	9	-.44	14	.52	2.07
	F-M::M-F	8	-.14	14	.25	.74
Ignoring	F-F::F-M	9	.17	14	.95***	3.27**
	F-F::M-M	10	.38	17	.32	.15
	F-F::M-F	9	.41	16	.19	.50
	M-M::M-F	12	.95***	17	.90***	.85
	M-M::F-M	9	.18	14	.04	.28
	F-M::M-F	8	.34	14	-.07	.79

* = $p < .05$ ** = $p < .01$ *** = $p < .001$

achievers and the significance of difference between the correlations. Since the significant correlations as found between the various comparisons of parental ratings have been related in presenting Tables 29 and 30, only the significant differences between the parental ratings with respect to the male and the female achievers are reported on the following PAS scales:

1) Possessive: The fathers ($N=14$) of the female achievers perceived a greater degree of similarity with their wives, as seen in their self-ratings with their ratings of their wives, in being possessive of their daughters than did the fathers ($N=9$) of the male achievers in being possessive of their sons ($z= 3.59, p < .01$).

2) Dominant: Although not significant at the 5 per cent level of confidence, there was a marked tendency for the mothers ($N=14$) of the female achievers to have perceived themselves in accordance with their husbands' perceptions of them in being dominant of their daughters than for the mothers ($N=9$) of the male achievers in being dominant of their sons ($z= 2.07, p < .10$).

3) Ignoring: The fathers ($N=14$) of the female achievers perceived a greater degree of similarity with their wives, as seen in their self-ratings with their ratings of their wives, in being ignoring of their daughters than did the fathers ($N=9$) of the male achievers in being ignoring of their sons ($z= 3.27, p < .01$).

The r to z transformation was also used between the

correlations of the parental ratings of the PAS scales in relation to the male and the female underachievers. Table 32 presents the significant differences which were obtained on the following PAS scales:

1) Dominant: The fathers ($N=12$) of the female underachievers perceived a greater degree of similarity with their wives in being dominant of their daughters than did the fathers ($N=10$) of the male underachievers in being dominant of their sons. ($z = 4.74, p < .001$).

The mothers ($N=13$) of the female underachievers perceived themselves and their husbands to be significantly more similar in being dominant of their daughters than did the mothers ($N=12$) of the male underachievers in their relationship to their sons ($z = 2.87, p < .01$). The mothers ($N=12$) of the females also perceived themselves in accordance with their husbands' perceptions of them to a significantly **greater** degree than did the mothers ($N=10$) of the males ($z = 2.52, p < .05$). In comparing both the fathers' and the mothers' ratings of each other, the parents of the female underachievers were in agreement significantly more so than the parents of the male underachievers in being dominant of their children ($z = 2.32, p < .05$).

2) Ignoring: In comparing the fathers' self-ratings with their ratings of their wives, the fathers ($N=12$) of the female underachievers perceived a greater degree of similarity with their wives in being ignoring of their daughters than did the fathers ($N=10$) of the male underachievers ($z = 2.07, p < .10$).

Table 32

Significance of r 's Between Parental Rankings On PAS
Variables In Relation To Male and Female Underachievers
And Significance of Difference of the r 's

Variable	Comparisons	Male Underachievers		Female Underachievers		z
		N	r	N	r	
Possessive	F-F::F-M	10	.73*	12	.77**	.18
	F-F::M-M	11	.12	13	.20	.17
	F-F::M-F	10	.28	12	.14	.29
	M-M::M-F	12	.66*	13	.87***	1.18
	M-M::F-M	10	-.19	12	.49	1.46
	F-M::M-F	9	.18	12	.45	.59
Dominant	F-F::F-M	10	.27	12	.99***	4.74***
	F-F::M-M	11	.24	13	.65*	1.12
	F-F::M-F	10	.32	12	.59*	.69
	M-M::M-F	12	.87***	13	.99***	2.87**
	M-M::F-M	10	-.16	12	.80**	2.52*
	F-M::M-F	9	-.39	12	.66**	2.32*
Ignoring	F-F::F-M	10	.33	12	.88***	2.07
	F-F::M-M	11	.57	13	.01	1.35
	F-F::M-F	10	.31	12	-.07	.78
	M-M::M-F	12	.58*	13	.93***	2.17*
	M-M::F-M	10	-.10	12	.29	.80
	F-M::M-F	9	-.08	12	.10	.35

* = $p < .05$ ** = $p < .01$ *** = $p < .001$

The reported significance was very close to the 5 per cent level of confidence indicating a marked difference between the two groups of fathers.

The mothers ($N=13$) of the female underachievers perceived themselves and their husbands to be significantly more in agreement to be ignoring of their daughters than did the mothers ($N=12$) of the male underachievers ($z= 2.17, p<.05$).

In general, it was found that in all instances where a significant difference existed the parents of the females were significantly more in agreement with one another on their child-rearing attitudes than were the parents of the male students regardless of the achievement levels of their daughters or their sons. In addition, when considering the differences in the parents' ratings with regard to the sex of the students, it was found that the majority of the significant differences existed in the comparisons of each parent's self-ratings with his or her ratings of the respective spouse. This same finding was observed when considering the differences in the parents' ratings with regard to the achievement levels of the students. The pattern of parents rating themselves similar to their ratings of their spouses was seen to be consistent on all the PAS scales and with respect to the achievement level and to the sex of the students.

In order to determine the actual differences in the child-rearing attitudes of the parents, the t test of significance was computed between the ratings of the parents on the PAS scales with respect to the achievement levels of the students and to

their sex. Table 33 presents the means, standard deviations, and t values of the parental child-rearing attitudes towards the male students by achievement level. A significant difference was found between the self-ratings of the fathers ($N=10$) of the male achievers and the self-ratings of the fathers ($N=11$) of the male underachievers on the Possessive scale ($t= 2.46, p<.05$). The fathers of the underachievers rated themselves as being more possessive of their sons than did the fathers of the male achievers. The fathers ($N=10$) of the male underachievers also perceived their wives to be more possessive in their attitudes towards their sons than did the fathers ($N=9$) of the male achievers in their ratings of their wives ($t= 2.11, p<.05$). No other ratings of the parents were found to be significant between the achieving and underachieving male students.

Table 34 presents the means, standard deviations, and t values of the parental child-rearing attitudes towards the female students. A significant difference was obtained between the self-ratings of the fathers ($N=18$) of the female achievers and the self-ratings of the fathers ($N=13$) of the female underachievers on the Dominant scale ($t= 2.25, p<.05$). The fathers of the female achievers saw themselves as being more dominant toward their daughters than did the fathers of the female underachievers.

Although not significant at the 5 per cent level of confidence, there was a marked tendency for the fathers ($N=14$) of the female achievers to rate their wives as being more possessive

Table 33

Means, Standard Deviations, and t Values
of Ratings of Selves and of Each Other
By Fathers and Mothers of Male Students
On Parent Attitude Survey (PAS)

Variable	Ratings	MA			MU			<u>t</u>
		<u>N</u>	Means	<u>SD</u>	<u>N</u>	Means	<u>SD</u>	
Possessive	F-F	10	78.60	5.93	11	84.91	5.81	2.46*
	F-M	9	77.89	6.85	10	86.80	10.90	2.11*
	M-M	13	80.54	7.07	14	81.79	5.47	.52
	M-F	12	80.50	5.70	12	83.83	7.99	1.17
Dominant	F-F	10	167.50	14.58	11	171.91	9.51	.82
	F-M	9	164.00	10.15	10	173.70	20.53	.39
	M-M	13	165.46	14.44	14	167.21	11.78	.35
	M-F	12	171.33	18.13	12	169.92	15.91	.20
Ignoring	F-F	10	56.50	4.51	11	57.00	3.35	.29
	F-M	9	52.67	3.38	10	55.20	6.24	1.06
	M-M	13	56.69	5.25	14	55.50	4.44	.64
	M-F	12	57.92	5.89	12	56.33	5.16	.70

* = $p < .05$

Table 34

Means, Standard Deviations, and t Values
of Ratings of Selves and of Each Other
By Fathers and Mothers of Female Students
On Parent Attitude Survey (PAS)

Variable	Ratings	FA			FU			<u>t</u>
		<u>N</u>	Means	<u>SD</u>	<u>N</u>	Means	<u>SD</u>	
Possessive	F-F	18	85.11	8.77	13	81.31	4.17	1.44
	F-M	14	87.57	10.13	12	80.75	6.23	2.03
	M-M	20	82.10	5.67	14	80.71	7.36	.62
	M-F	17	82.59	5.86	13	82.08	7.60	.21
Dominant	F-F	18	176.00	11.52	13	166.39	12.21	2.25*
	F-M	14	175.57	13.02	12	167.00	15.92	1.51
	M-M	20	167.65	16.02	14	168.21	13.65	.11
	M-F	17	171.94	14.38	13	170.69	13.37	.26
Ignoring	F-F	18	56.22	4.94	13	54.85	4.85	.77
	F-M	14	55.50	4.87	12	55.00	4.29	.27
	M-M	20	56.00	4.24	14	55.43	5.13	.35
	M-F	17	56.41	4.15	13	57.77	4.56	.85

* = $p < .05$

of their daughters than for the fathers ($N=12$) of the female underachievers in their ratings of their wives ($t= 2.03, p < .10$). No other significant differences were found between the parental ratings of the female achievers and the parental ratings of the female underachievers.

Table 35 presents the means, standard deviations, and t values between the ratings of the parents on the PAS scales with respect to the achieving male and female students. A significant difference was obtained between the self-ratings of the fathers ($N=18$) of the female achievers and the self-ratings of the fathers ($N=10$) of the male achievers on the Possessive scale ($t= 2.33, p < .05$). The fathers of the females saw themselves as being significantly more possessive of their achieving daughters than did the fathers of the males perceive themselves as being possessive of their sons. The fathers ($N=14$) of the females also perceived their wives to be more possessive of their achieving daughters than did the fathers ($N=9$) of the males in the perceptions of their wives as being possessive of their sons ($t= 2.73, p < .05$).

The fathers ($N=14$) of the female achievers also perceived their wives to be more dominant of their daughters than did the fathers ($N=9$) of the male achievers in their perceptions of their wives being dominant of their sons ($t= 2.39, p < .05$). No other significant differences were found between the parental ratings with respect to the male and the female achieving students.

The t test of significance of difference was also used to

Table 35

Means, Standard Deviations, and t Values
of Ratings Between Parents of the
Achieving Males and the Achieving Females
On Parent Attitude Survey (PAS)

Variable	Ratings	MA			FA			<u>t</u>
		<u>N</u>	Means	<u>SD</u>	<u>N</u>	Means	<u>SD</u>	
Possessive	F-F	10	78.60	5.93	18	85.11	8.77	2.33*
	F-M	9	77.89	6.85	14	87.57	10.13	2.73*
	M-M	13	80.54	7.07	20	82.10	5.67	.66
	M-F	12	80.50	5.70	17	82.59	5.86	.96
Dominant	F-F	10	167.50	14.58	18	176.00	11.52	1.58
	F-M	9	164.00	10.15	14	175.57	13.02	2.39*
	M-M	13	165.46	14.44	20	167.65	16.02	.41
	M-F	12	171.33	18.13	17	171.94	14.38	.10
Ignoring	F-F	10	56.50	4.51	18	56.22	4.94	.15
	F-M	9	52.67	3.88	14	55.50	4.87	1.55
	M-M	13	56.69	5.25	20	56.00	4.24	.22
	M-F	12	57.92	5.89	17	56.41	4.15	.39

* = $p < .05$

determine significant differences in the child-rearing attitudes of the parents of the male underachievers with the parents of the female underachievers. Table 36 presents the means, standard deviations, and t values of the parental ratings on the PAS in respect to the sex of the underachieving students. As indicated on Table 36, no significant differences were obtained between the parents of the male underachievers and the parents of the female underachievers on the PAS scales.

Child's Report of Parent Behavior Inventory

The t test of significance of difference between means was used to determine significant differences between the students with respect to their perceptions of their parents' child-rearing practices as measured by the CRPBI. Table 37 presents the means, standard deviations, and t values between the male achievers and the male underachievers in their ratings of their fathers on the various scales of the CRPBI. A significant difference between the male achievement groups was obtained on the following CRPBI scales:

1) Non-Enforcement: The male underachievers ($N=27$) thought that their fathers did not enforce regulations significantly more than the male achievers ($N=22$) thought this to be so for their fathers ($t= 3.89, p<.001$).

2) Lax Discipline: The male underachievers ($N=27$) also believed that their fathers were more lax in their discipline towards them than did the male achievers ($N=22$) believe this to be a characteristic of their fathers ($t= 4.03, p<.001$).

Table 36

Means, Standard Deviations, and t Values
of Ratings Between Parents of the
Underachieving Males and Underachieving Females
On Parent Attitude Survey (PAS)

Variable	Ratings	MU			FU			<u>t</u>
		<u>N</u>	Means	<u>SD</u>	<u>N</u>	Means	<u>SD</u>	
Possessive	F-F	11	84.91	5.81	13	81.31	4.17	1.71
	F-M	10	86.80	10.90	12	80.75	6.23	1.56
	M-M	14	81.17	5.47	14	80.71	7.36	.18
	M-F	12	83.83	7.99	13	82.08	7.60	.56
Dominant	F-F	11	171.91	9.51	13	166.39	12.21	1.24
	F-M	10	173.70	20.53	12	176.00	15.92	.29
	M-M	14	167.21	11.78	14	168.21	13.65	.21
	M-F	12	169.92	15.91	13	170.69	13.37	.13
Ignoring	F-F	11	57.00	3.35	13	54.85	4.85	1.28
	F-M	10	55.20	6.24	12	55.00	4.29	.09
	M-M	14	55.50	4.44	14	55.43	5.13	.04
	M-F	12	56.33	5.16	13	57.77	4.56	.74

Table 37

Means, Standard Deviations, and t Values
of Male Student's Rating of Father On
Child's Report of Parent Behavior Inventory (CRPBI)

Variable	MA (<u>N</u> =22)		MU (<u>N</u> =27)		<u>t</u>
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Acceptance	38.14	7.34	37.04	7.11	.78
Child Centeredness	16.00	3.98	16.22	3.74	.29
Possessiveness	13.59	3.19	13.52	3.40	.12
Rejection	23.77	6.57	24.15	6.43	.30
Control	18.00	2.98	17.41	2.91	1.04
Enforcement	16.27	3.65	15.04	3.30	1.76
Positive Involvement	34.55	7.36	33.26	6.66	.91
Intrusiveness	14.50	3.85	13.07	3.51	1.93
Control Thru Guilt	12.59	3.76	13.19	3.93	.82
Hostile Control	28.41	5.86	28.59	4.80	.16
Inconsistent Discipline	11.09	3.15	11.93	3.09	1.38
Non-Enforcement	9.82	1.53	10.96	2.71	3.89***
Accept. Individualization	36.23	7.79	35.70	6.61	.35
Lax Discipline	10.41	2.15	12.07	2.56	4.03***
Instill Persistent Anx.	11.68	2.89	13.04	3.29	2.45*
Hostile Detachment	22.41	6.67	23.26	7.00	.66
Withdrawal of Relations	11.77	4.16	11.11	3.31	.83
Extreme Autonomy	10.45	1.90	11.33	3.36	2.41*

* = $p < .02$
*** = $p < .001$

3) Extreme Autonomy: The male underachievers ($N=27$) believed that their fathers allow them to have more autonomy than the male achievers ($N=22$) believed this to be so of their fathers ($t= 2.41, p < .02$).

The significant differences between the male achievers and the male underachievers in their perceptions of their fathers as reported so far are consistent with each other in stating that the male underachievers perceived their fathers as being significantly more permissive in their child-rearing practices than are the fathers of the male achievers as viewed by their sons.

4) Enforcement: Although not significant at the 5 per cent level of confidence, the male achievers ($N=22$) had a marked tendency to believe that their fathers showed significantly more enforcement of regulations than did the male underachievers ($N=27$) believe this to be so for their fathers ($t= 1.76, p < .10$). This finding, although not as significant as the previous findings, tends to substantiate the conclusion that in the perceptions of the students the fathers of the male underachievers are more permissive towards their sons than are the fathers of the male achievers.

5) Instilling Persistent Anxiety: The male underachievers ($N=27$) rated their fathers as being able to instill them with anxiety by their actions significantly more so than the male achievers ($N=22$) rated their fathers' actions in this manner ($t= 2.45, p < .02$).

6) Intrusiveness: Although not significant at the

5 per cent level of confidence, the male achievers ($N=22$) showed a tendency to believe that their fathers are intrusive more so than the male underachievers ($N=27$) believed this of their fathers ($t= 1.93$, $p < .10$). This finding appears to be related to the tested significance between the male achievement groups in their ratings of their fathers' child-rearing practices on the degree of felt autonomy that they, the students, are permitted. Possibly the fathers of the male achievers keep a tighter reign on their sons by being intrusive into their affairs.

Table 38 presents the means, standard deviations, and t values between the male achievers and the male underachievers in their perceptions of their mothers' child-rearing practices. The only significant finding at the 5 per cent level of confidence or greater was obtained between the means of the male achievers ($N=23$) and the male underachievers ($N=27$) in their ratings of their mothers' practice of using hostility as a means of control ($t= 2.09$, $p < .05$). The male underachievers believed this to be so of their mothers significantly more than the male achievers.

Although not significant at the 5 per cent level of confidence, the male underachievers had a tendency to view their mothers as producing anxiety in them, the underachievers ($N=27$), more than the male achievers ($N=23$) viewed their mothers in like manner ($t= 1.96$, $p < .10$). The underachieving males tended to view both their fathers and mothers as being significantly more

Table 38

Means, Standard Deviations, and t Values
of Male Student's Rating of Mother On
Child's Report of Parent Behavior Inventory (CRPBI)

Variable	MA ($N=23$)		MU ($N=27$)		t
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Acceptance	39.70	7.19	37.37	7.69	1.10
Child Centeredness	17.09	3.68	17.15	3.94	.06
Possessiveness	15.57	3.07	16.15	3.97	.57
Rejection	22.17	5.10	25.11	7.40	1.61
Control	17.87	2.88	18.56	2.94	.83
Enforcement	14.78	3.38	16.44	4.19	1.52
Positive Involvement	37.22	7.10	35.07	7.54	1.03
Intrusiveness	15.83	3.03	15.19	4.06	.62
Control Thru Guilt	13.48	3.70	15.11	4.79	1.33
Hostile Control	28.96	4.86	32.52	6.82	2.09*
Inconsistent Discipline	11.39	2.81	11.44	2.34	.07
Non-Enforcement	10.74	1.84	10.41	2.39	.54
Accept. Individualization	37.96	6.52	34.96	8.09	1.42
Lax Discipline	12.54	3.20	12.37	2.80	.18
Instill Persistent Anx.	12.09	3.18	14.30	4.54	1.96
Hostile Detachment	21.57	5.91	23.63	7.65	1.05
Withdrawal of Relations	12.00	3.56	11.85	4.05	.14
Extreme Autonomy	10.78	2.37	11.11	3.46	.38

* = $p < .05$

anxiety producing in their relationship with them than did the male achievers.

Table 39 presents the means, standard deviations, and t values between female achievers and the female underachievers in their perceptions of their fathers' child-rearing practices. A significant difference was obtained between the two female groups in their ratings of their fathers' use of Inconsistent Discipline towards them ($t = 2.61$, $p < .02$). The female underachievers ($N=18$) perceived their fathers to be significantly more inconsistent in their discipline than did the female achievers ($N=33$) believe this to be so of their fathers.

Although not significant at the 5 per cent level of confidence there were a number of obtained differences which were found to be significant beyond the 10 per cent level of confidence. Of these, the female achievers ($N=33$) were found to be more inclined to view their fathers as being accepting of them than were the female underachievers ($N=18$) in their views of their fathers on the scale of Acceptance ($t = 1.93$, $p < .10$). In the same light, the underachieving females ($N=18$) tended to view their fathers as being rejecting of them more than the female achievers ($N=33$) perceived their fathers in such a manner ($t = 1.84$, $p < .10$).

There was also a tendency on the part of the female achievers ($N=33$) to have been more inclined to view their fathers as accepting of their, the students', individuality than was the case for the female underachievers ($N=18$) in their like

Table 39

Means, Standard Deviations, and t Values
of Female Student's Rating of Father On
Child's Report of Parent Behavior Inventory (CRPBI)

Variable	FA (N=33)		FU (N=18)		<u>t</u>
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Acceptance	41.36	5.36	37.33	9.64	1.93
Child Centeredness	18.88	3.47	17.11	4.27	1.60
Possessiveness	14.39	3.05	14.06	2.21	.41
Rejection	20.30	4.47	23.72	8.86	1.84
Control	16.61	3.34	17.61	2.93	1.07
Enforcement	14.61	2.59	16.06	3.57	1.67
Positive Involvement	38.18	5.43	35.33	6.25	1.70
Intrusiveness	13.52	2.97	13.89	3.85	.39
Control Thru Guilt	11.88	3.85	13.39	4.13	1.31
Hostile Control	24.18	4.50	26.61	8.19	1.37
Inconsistent Discipline	9.76	2.17	12.06	4.15	2.61*
Non-Enforcement	10.48	2.24	9.56	.98	1.67
Accept. Individualization	39.27	5.59	35.78	7.65	1.87
Lax Discipline	10.94	1.95	10.56	2.12	.65
Instill Persistent Anx.	10.94	3.04	12.28	3.80	1.38
Hostile Detachment	20.06	5.09	23.83	9.51	1.85
Withdrawal of Relations	10.30	3.29	11.72	3.80	1.39
Extreme Autonomy	12.73	3.51	11.22	2.51	1.61

* = $p < .02$

perceptions of their fathers ($t = 1.87, p < .10$). The female underachievers ($N = 18$) also tended to perceive their fathers as using hostile detachment in their relations with them more than the female achievers ($N = 33$) perceived their fathers in like manner ($t = 1.85, p < .10$).

In general, it appears that the female achievers perceived their fathers as having a closer emotional attachment to them than did the female underachievers.

Table 40 presents the means, standard deviations, and t values between the female achievers and the female underachievers in their perceptions of their mothers' child-rearing practices. As indicated on the table, no significant differences were obtained between the means of either female group in respect to how they perceived their mothers' child-rearing practices to be as measured by the CRPBI scales.

The t test of significance of means was performed between the students' ratings of their parents on the CRPBI scales when considering the sexes of the students. Table 41 presents the means, standard deviations, and t values between the achieving males' ratings of their fathers and the achieving females' ratings of their fathers on the CRPBI scales. Significant differences between the achieving groups of students were found on the following scales:

- 1) Child Centeredness: The female achievers ($N = 33$) perceived their fathers as being more child-centered than did the male achievers ($N = 22$) perceive their fathers as such ($t = 2.84$).

Table 40

Means, Standard Deviations, and t Values
of Female Student's Rating of Mother On
Child's Report of Parent Behavior Inventory (CRPBI)

Variable	FA (<u>N</u> =34)		FU (<u>N</u> =18)		<u>t</u>
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Acceptance	41.97	5.40	41.44	5.14	.34
Child Centeredness	19.35	3.29	19.22	2.86	.14
Possessiveness	15.44	3.30	15.44	2.57	.00
Rejection	20.79	5.12	20.39	4.64	.28
Control	17.79	3.17	17.89	2.35	.11
Enforcement	14.59	2.95	14.83	2.38	.30
Positive Involvement	39.18	4.85	39.33	5.04	.11
Intrusiveness	15.41	3.39	15.17	2.36	.27
Control Thru Guilt	13.21	4.01	14.06	4.36	.71
Hostile Control	26.15	5.85	26.11	4.60	.02
Inconsistent Discipline	10.56	2.51	11.56	3.05	1.26
Non-Enforcement	10.35	2.13	10.33	2.28	.03
Accept. Individualization	39.76	5.32	39.50	5.11	.17
Lax Discipline	11.59	2.22	12.61	3.33	1.33
Instill Persistent Anx.	11.15	2.90	12.50	2.98	1.56
Hostile Detachment	20.00	4.70	20.94	5.04	.67
Withdrawal of Relations	11.44	3.58	10.28	2.97	1.18
Extreme Autonomy	11.91	2.96	10.94	2.13	1.23

$p < .01$).

2) Rejection: The male achievers ($N=22$) believed that their fathers were rejecting of them more than the female achievers ($N=33$) believed that their fathers were rejecting of them ($t = 2.34, p < .05$).

3) Positive Involvement: The female achievers ($N=33$) perceived their fathers as being positively involved with them more than the male achievers ($N=22$) perceived their fathers to be positively involved with them ($t = 2.11, p < .05$).

4) Hostile Control: The male achievers ($N=22$) perceived their fathers as using hostile control in their relations with them more so than the female achievers ($N=33$) perceived this to be true of their fathers ($t = 3.02, p < .01$).

5) Extreme Autonomy: The female achievers ($N=33$) perceived their fathers as allowing them more autonomy than did the male achievers ($N=22$) perceive their fathers as such ($t = 2.77, p < .01$).

A number of differences were obtained which were not significant at the 5 per cent level of confidence but which approached significance at that level.

6) Acceptance: The female achievers ($N=33$) tended to perceive their fathers as being more accepting than the male achievers ($N=22$) perceived their fathers to be accepting of them ($t = 1.89, p < .10$).

7) Enforcement: The male achievers ($N=22$) tended to view their fathers as enforcing regulations more than the female

Table 41

Means, Standard Deviations, and t Values Between
Achieving Male and Female Student Ratings of Father On
Child's Report of Parent Behavior Inventory (CRPBI)

Variable	MA (N=22)		FA (N=33)		t
	Mean	SD	Mean	SD	
Acceptance	38.14	7.34	41.36	5.36	1.89
Child Centeredness	16.00	3.98	18.88	3.47	2.84**
Possessiveness	13.59	3.19	14.39	3.05	.94
Rejection	23.77	6.57	20.30	4.47	2.34*
Control	18.00	2.98	16.61	3.34	1.58
Enforcement	16.27	3.65	14.61	2.59	1.98
Positive Involvement	34.55	7.36	38.18	5.43	2.11*
Intrusiveness	14.50	3.85	13.52	2.97	1.07
Control Thru Guilt	12.59	3.76	11.88	3.85	.68
Hostile Control	28.41	5.86	24.18	4.50	3.02**
Inconsistent Discipline	11.09	3.15	9.76	2.17	1.86
Non-Enforcement	9.82	1.53	10.48	2.24	1.22
Accept. Individualization	36.23	7.79	39.27	5.59	1.69
Lax Discipline	10.41	2.15	10.94	1.95	.95
Instill Persistent Anx.	11.68	2.89	10.94	3.04	.91
Hostile Detachment	22.41	6.67	20.06	5.09	1.48
Withdrawal of Relations	11.77	4.16	10.30	3.29	1.46
Extreme Autonomy	10.45	1.90	12.73	3.51	2.77**

* = $p < .05$

** = $p < .01$

achievers ($N=33$) viewed their fathers as enforcing regulations ($t= 1.98, p < .10$).

8) Inconsistent Discipline: The male achievers ($N=22$) perceived their fathers as being inconsistent in their discipline towards them more than the female achievers ($N=33$) perceived their fathers as being inconsistent in their discipline ($t= 1.86, p < .10$).

The general pattern which was obtained between the ratings of the male achievers towards their fathers and the female achievers towards their fathers was that the female achievers saw their fathers in more positive ways than the male achievers saw their fathers. A somewhat contradictory result was seen in the male achievers perceiving their fathers as enforcing regulations but yet being inconsistent in their discipline.

Table 42 presents the means, standard deviations, and t values between the underachieving males' ratings of their fathers and the underachieving females' ratings of their fathers. As shown on the table, the male underachievers ($N=27$) perceived their fathers as not enforcing regulations more than the female underachievers ($N=18$) perceived this to be so of their fathers ($t= 2.46, p < .05$). In the same manner, the male underachievers ($N=27$) believed that their fathers were lax in their discipline more than the female underachievers ($N=18$) believed this to be so for their fathers ($t= 2.16, p < .05$). Thus it is seen that the fathers of the male underachievers are viewed by their sons to be permissive more so than the fathers of the female

Table 42

Means, Standard Deviations, and t Values Between
Underachieving Male and Female Student Ratings of Father
On Child's Report of Parent Behavior Inventory (CRPBI)

Variable	MU ($N=27$)		FU ($N=18$)		t
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Acceptance	37.04	7.11	37.33	9.64	.11
Child Centeredness	16.22	3.74	17.11	4.27	.72
Possessiveness	13.52	3.40	14.06	2.21	.65
Rejection	24.15	6.43	23.72	8.86	.27
Control	17.41	2.91	17.61	2.93	.08
Enforcement	15.04	3.30	16.06	3.57	.97
Positive Involvement	33.26	6.66	35.33	6.25	1.06
Intrusiveness	13.07	3.51	13.89	3.85	.72
Control Thru Guilt	13.19	3.93	13.39	4.13	.16
Hostile Control	28.59	4.80	26.61	8.19	.93
Inconsistent Discipline	11.93	3.09	12.06	4.15	.11
Non-Enforcement	10.96	2.71	9.56	.98	2.46*
Accept. Individualization	35.70	6.61	35.78	7.65	.04
Lax Discipline	12.07	2.56	10.56	2.12	2.16*
Instill Persistent Anx.	13.04	3.29	12.28	3.80	.69
Hostile Detachment	23.26	7.00	23.83	9.51	.22
Withdrawal of Relations	11.11	3.31	11.72	3.80	.56
Extreme Autonomy	11.33	3.36	11.22	2.51	.13

* = $p < .05$

underachievers are viewed by their daughters to be permissive.

Table 43 presents the means, standard deviations, and t values between the achieving males' ratings of their mothers and the achieving females' ratings of their mothers on the CRPBI scales. The female achievers ($N=34$) perceived their mothers to be child-centered in their child-rearing practices more than the male achievers ($N=23$) believed this to be so for their mothers ($t= 2.43, p < .02$). While not significant at the 5 per cent level of confidence, there was a marked tendency on the part of the male achievers ($N=23$) to view their mothers as using hostile controlling measures more than the female achievers ($N=34$) viewed their mothers as such ($t= 1.90, p < .10$).

Table 44 presents the means, standard deviations, and t values between the underachieving males' ratings of their mothers and the underachieving females' ratings of their mothers on the CRPBI scales. Significant differences between the underachieving groups of students in their ratings of their mothers were found on the following scales:

1) Rejection: The male underachievers ($N=27$) more than the female underachievers ($N=18$) rated their mothers as being rejecting of them ($t= 2.41, p < .05$).

2) Positive Involvement: The female underachievers ($N=18$) more than the male underachievers ($N=27$) perceived their mothers as being more positively involved with them ($t= 2.10, p < .05$).

3) Hostile Control: The male underachievers ($N=27$)

Table 43

Means, Standard Deviations, and t Values Between
Achieving Male and Female Student Ratings of Mother On
Child's Report of Parent Behavior Inventory (CRPBI)

Variable	MA (N=23)		FA (N=34)		t
	Mean	SD	Mean	SD	
Acceptance	39.70	7.19	41.97	5.40	1.36
Child Centeredness	17.09	3.68	19.35	3.29	2.43*
Possessiveness	15.57	3.07	15.44	3.30	.14
Rejection	22.17	5.10	20.79	5.12	1.00
Control	17.87	2.88	17.79	3.17	.09
Enforcement	14.78	3.38	14.59	2.95	.23
Positive Involvement	37.22	7.10	39.18	4.85	1.24
Intrusiveness	15.83	3.03	15.41	3.39	.47
Control Thru Guilt	13.48	3.70	13.21	4.01	.26
Hostile Control	28.96	4.86	26.15	5.85	1.90
Inconsistent Discipline	11.39	2.81	10.56	2.51	1.17
Non-Enforcement	10.74	1.84	10.35	2.13	.71
Accept. Individualization	37.96	6.52	39.76	5.32	1.15
Lax Discipline	12.52	3.20	11.59	2.22	1.30
Instill Persistent Anx.	12.09	3.18	11.15	2.90	1.16
Hostile Detachment	21.57	5.91	20.00	4.70	1.11
Withdrawal of Relations	12.00	3.56	11.44	3.58	.58
Extreme Autonomy	10.78	2.37	11.91	2.96	1.53

* = $p < .02$

Table 44

Means, Standard Deviations, and t Values Between
Underachieving Male and Female Student Ratings of Mother
On Child's Report of Parent Behavior Inventory (CRPBI)

Variable	MU ($N=27$)		FU ($N=18$)		t
	Mean	<u>SD</u>	Mean	<u>SD</u>	
Acceptance	37.37	7.69	41.44	5.14	1.97
Child Centeredness	17.15	3.94	19.22	2.86	1.92
Possessiveness	16.15	3.97	15.44	2.57	.66
Rejection	25.11	7.40	20.39	4.64	2.41*
Control	18.56	2.94	17.89	2.35	.81
Enforcement	16.44	4.19	14.83	2.38	1.48
Positive Involvement	35.07	7.54	39.33	5.04	2.10*
Intrusiveness	15.19	4.66	15.17	2.36	.02
Control Thru Guilt	15.11	4.79	14.06	4.36	.75
Hostile Control	32.52	6.82	26.11	4.60	3.49**
Inconsistent Discipline	11.44	2.34	11.56	3.05	.14
Non-Enforcement	10.41	2.39	10.33	2.28	.10
Accept. Individualization	34.96	8.09	39.50	5.11	2.11*
Lax Discipline	12.37	2.80	12.61	3.33	.26
Instill Persistent Anx.	14.30	4.54	12.50	2.98	1.48
Hostile Detachment	23.63	7.65	20.94	5.04	1.31
Withdrawal of Relations	11.85	4.05	10.28	2.97	1.42
Extreme Autonomy	11.11	3.46	10.94	2.13	.18

* = $p < .05$

** = $p < .01$

more than the female underachievers ($N=18$) viewed their mothers as using hostile controlling measures in their relationships with them ($t= 3.49$, $p<.01$).

4) Acceptance of Individualization: The females ($N=18$) more than the males ($N=27$) who were underachievers viewed their mothers as accepting of their individuality ($t= 2.11$, $p<.05$).

Although not significant at the 5 per cent level of confidence, there was a marked tendency for the female underachievers ($N=18$) more than the male underachievers ($N=27$) to perceive their mothers as accepting of them ($t= 1.97$, $p<.10$) and as being child-centered in their child-rearing attitudes and practices ($t= 1.92$, $p<.10$).

As indicated on Tables 41-44, there was a general pattern which evolved when comparing the ratings of the male students with the ratings of the female students towards the child-rearing attitudes and practices of their fathers and mothers. The females consistently perceived both parents to be more positively oriented towards them than did the males regardless of the achievement levels of the students. This may be related to the stereotyped learning patterns of masculinity and femininity as evidenced in the Western culture.

Discussion

The results found in this study tended to support the hypothesis that there is a significant difference in the psychological adjustment between junior high school achievers and underachievers. Based on the significant difference between the male achievers and the male underachievers on the Personal Adjustment scale of the ACL, it can be stated with a fairly high degree of certainty that the male achievers are better adjusted psychologically than are the male underachievers. This conclusion was reached by a number of other investigators (Berger & Sutker, 1956; Cash, 1954; Corlis, 1963; DeSena, 1964; Frankel, 1960; Roberts, 1962; Tibbetts, 1955). Of these, Berger and Sutker (1956) and Roberts (1962) studied the psychological adjustment of females in addition to males. They were able to find significant differences existing between the female achievement groups in relation to general psychological adjustment. In the present investigation no significant difference was obtained between the female achievement groups on the Personal Adjustment scale of the ACL — a measure of general psychological adjustment.

All of the studies referred to above used high school or college students in their sample groups. The present results indicated that for the males a significant difference in

personality adjustment exists between achievement groups on the junior high school level of education. So that, in addition to finding an underachievement syndrome in children at the elementary school level as did Barrett (1957) and Shaw and McCuen (1960), it is concluded from this study that the significant difference in the personality adjustment of elementary or junior high school students exists between the male achievers and the male underachievers.

In considering the differences between the males and the females in their general personality adjustment as measured by the Personal Adjustment scale of the ACL, it was found that the female underachievers were better adjusted than were the male underachievers. No significant difference was obtained between the male achievers and the female achievers. It appears that for the female students in the sample group their achievement level had no bearing on their psychological adjustment. When comparing the female achievers to the female underachievers no significant difference was found; when comparing the female achievers with the male achievers no significant difference was obtained; and when comparing the female underachievers with the male underachievers the females were found to be better adjusted psychologically. Although other investigations compared the achievers with the underachievers by sex group (Barwick & Arbuckle, 1962; Bruck & Bodwin, 1962; Heilbrun, 1960b; Heilbrun, 1965c; Powell & Jourard, 1963; Shaw & Alves, 1963; Shaw & Grubb, 1958; Shaw & White, 1965; Smykal, 1962; Taylor & Farquhar, 1965;

Teahan, 1963; Winkelman, 1963), there is a relative absence of research in comparing the males with the females by achievement level.

In relation to the individual indices of personality adjustment as measured by the CPI, it was found that male achievers were more dominant, aggressive, and assertive than were the male underachievers. This finding is consistent with results as seen between male achievers and underachievers in college (Gebhart & Hoyt, 1958; Merrill & Murphy, 1959; Morgan, 1952).

The male achievers in the present study were also found to be more self-confident, and more self-assured than the male underachievers. The achievers' self-concept appeared to be better than the self-concept of the male underachievers. This is the most consistent finding in the literature in differentiating between achievement groups on personality variables. The results of previous studies show it to be existant at the elementary school level (Bruck & Bodwin, 1962; Calhoun, 1956; Combs, 1964; Haggard, 1957; McGuire, 1961; Peppin, 1963; Taylor & Farquhar, 1965) at the high school level (Fink, 1962; Kurtz & Swenson, 1951; Shaw & Alves, 1963; Shaw, Edison, & Bell, 1960) and at the college level of education (Borislow, 1962; DeSena, 1964; Morgan, 1952; Powell & Jourard, 1963; Todd, Terrell, & Frank, 1962). Though some of these studies found significant differences between female achievement groups on their self-concepts, the present investigation did not. Whether the male

underachievers' lower self-concept was a function of his lowered achievement or whether it existed prior to his lack of adequate achievement is not assessed in this investigation. Further study of this relationship would be desirable.

The results of the present investigation also revealed that the male achievers scored significantly higher than did the male underachievers on a scale measuring achievement through conformity. This finding is consistent also with past research data (Frankel, 1960; Haggard, 1957; Kerns, 1957; Kurtz & Swenson, 1951; Roberts, 1962; Taylor & Farquhar, 1965). Although the male underachievers scored significantly lower on this scale of the CPI than did the male achievers, it appears difficult to conclude that male underachievers are less conforming in their personality make-up than are achievers. It seems that in order to achieve one must conform to a certain degree, and if conformity and achievement are highly related, then all that this scale is measuring is achievement versus underachievement in the selected sample. What is needed is to study conformity as a separate entity and then to see if it is related to achieving or underachieving students.

A tendency was shown for the male achievers to be significantly more responsible than the male underachievers. Similar results were not obtained with the female achievement groups. The same basic findings were reported by Crandall, Katkovsky, and Crandall (1965) and by Crandall, Katkovsky, and Preston (1962). They also found differences between the male groups but

not the female groups in relating responsibility to achievement in an elementary school sample of students. Roberts (1962) was able to find significant differences between achievement groups for both sexes in her sample of high school students. DeSena (1964) and Morgan (1952) studied only college males and found significant differences between achievement groups on the variable of responsibility which is in agreement with the present results.

Findings are reported in the present study which indicate that male achievers have a tendency to score higher on a scale measuring one's attributes which lead to status, such as being ambitious, resourceful, and ascendant, than do the male underachievers. This differences between the male achievers and the male underachievers has been found in previous studies (DeSena, 1964; Frankel, 1960; Heilbrun, 1963a; Kerns, 1957; Kurtz & Swenson, 1951; McKenzie, 1964; Morgan, 1952; Roberts, 1962; Taylor & Farquhar, 1965). Heilbrun (1963a) remarked that the personality variables which seemed most important for the achieving males were those which seem to be directly related to the task of academic learning, representing as they do needs to gain status by outperforming others by achievement. He believed that the personality characteristics which most often differentiate male achievers from male underachievers are those which correlate the highest with achievement itself. If this be so, then the descriptive personality studies between achievers and underachievers are producing indices of validity for achievement

and underachievement. His selected samples of achievers and underachievers would in fact be merely judged as achievers and underachievers based on the personality variables. What is needed would be fewer investigations on descriptive personality variables and more emphasis placed on causal factors leading to underachievement.

The only significant results found in this study between the female achievement groups on the CPI were seen on the scale Communality which attempts to measure an individual's responses in relation to a "common" pattern. This scale appears to measure one's view of self in relation to his perceived idea of the norm. Previous studies have found that female achievers tend to be more concerned with what is expected of them in their role as a part of a group (Duff & Siegel, 1960; Heilbrun, 1965c; Taylor & Farquhar, 1965). Achieving females seem to conform to the societal requirements, whereas underachieving females tend to do more of the unusual or unexpected in relation to their feminine role. Heilbrun (1965c) concluded in his study that the high-ability underachieving female experiences adjustive difficulties not only because she may be frustrated by her coursework but also because of additional problems associated with deviancy from expected feminine social role behaviors. It is quite possible that the present results indicate that this is so even for the junior high school female underachiever. However, it cannot be concluded that this is so because of the lack of corroborative results from the CPI measures. A tendency towards this

conclusion may be present in the tested difference, though not significant at the 5 per cent level of confidence, between the female achievers and the underachievers on the scale Femininity showing the achievers to be more feminine than their counterparts.

In considering the obtained differences between the male and the female achievers on the CPI scales, it was found that the males were significantly more dominant, aggressive, self-confident, and self-assured than were the females. Although previous studies have not directly compared the males with the females, with the exception of the study by Goodstein and Heilbrun (1962) who found no pattern to exist between the sexes, there is evidence in the literature supporting the contention that the female achievers are less aggressive and dominant than are the female underachievers (Heilbrun, 1963a; Heilbrun, 1965c). However, Heilbrun (1963b) and Heilbrun and Fromme (1965) have stated that females who can combine satisfactorily a double sex-role in college — being somewhat assertive and aggressive while yet being feminine — do achieve significantly better than those females who are merely aggressive and assertive or who are more masculine in their sex-role orientation. In relating these past findings to the present male and female differences of the achieving students, it may well be that the younger females in the present study have not yet fully developed the somewhat assertive and aggressive roles which may be necessary for scholastic achievement at the college level. The fact that the

females are achievers now may be related more to their own personal need for achievement or to social pressures.

In considering the obtained differences between the male and the female underachievers on the CPI scales, it was found that the females were better able to control their impulses than the males and that they had a tendency to be more energetic, ambitious, productive, responsible, cooperative and able to create a more favorable impression than the male underachievers. Since these personality characteristics were not evidenced between the female achievers and the female underachievers, it appears that these differences between the female underachievers and the male underachievers are more a function of the negative personality characteristics of the male underachievers. In addition, since one would expect that females showing these characteristics to be achievers, it becomes more evident that the achievement or underachievement of the females in the present sample group was not related to their personality adjustment.

From the three measures of parent-child identification based on the perceptions of child to parent, parent to child, and the self-perceptions of each group against the self-perceptions of the other group, it was discovered that many more significant findings of similarity existed in the students' ratings of the parents in relation to themselves. The next highest number of significant findings was obtained on the parents' ratings of the students in relation to themselves. Finally, few significant correlations, in relation to the other measures of

child-parent identification, were found between the self-perceptions of the students and the self-perceptions of the parents. The possibility exists that these differences in the number of correlations among the three measures of parent-child identification are related to the fact that the students and the parents knew that they were rating themselves along with one another while they were not aware that their self-perceptions would be correlated with one another. Therefore, as previously suggested, the measure of identification existing in the correlations between the self-perceptions of the students and the self-perceptions of the parents might well be the most objective measure as found in this study.

Bronfenbrenner in his theories of parental identification (1960) and the problems in its measurement (1958) mentioned response sets as being of prime concern when perceived measures of identification are employed since test scores are obtained from the same person. It seems apparent that response sets may well have been in existence in the present study as seen in the students' perceptions of their parents in relation to their own self-perceptions. A response set may also have existed in the correlations between the parents' perceptions of their children and their own self-perceptions. On the basis of this assumption, it was proposed that the most valid index of identification between child and parent may lie in the correlations between the self-perceptions of the children and the self-perceptions of the parents. This assumption was supported by the fact that many of

of the correlations on the other two measures of parent-child identification were contradictory or did not have much meaning.

Since identification measures are usually based upon the dimension of parent-child behavioral similarity, which follows from a modeling analogue of learning, Bronfenbrenner made the distinction between assumed and real similarity. Assumed similarity is the result of the identification study in which the child engages in self- and parent description. Real similarity refers to the overlap between the subject's self-description and the self-description of some other person or group as well as to the correspondence between the child's and parent's own self-descriptions on a common measure. The present study is thus seen to have measured both assumed similarity and real similarity in its three indices of child-parent identification.

Sopchak (1952) contended that perceptual or assumed measures of parent-child similarity are the only reasonable ones. Bronfenbrenner (1958) on the other hand found positive results for both types of measures in identification measures. He cited four studies showing positive results for assumed similarity measures (Cass, 1952; Cava & Rausch, 1952; Gray, 1959; Sears, 1961), four with positive results for real similarity measures (Cass, 1952; Helper, 1955; Gray & Klaus, 1956; Maccoby, 1959), and one study reporting a substantial correlation between the two types (Gray & Klaus, 1956). Heilbrun (1965b) in attempting to refute Bronfenbrenner's criticisms on the assumed measures of parent-child identification, presented many studies showing

positive results for the perceptual or assumed method of assessing parent-child identification. He concluded that the weight of these studies establishes the construct validity of the assumed method of studying parental identification. While this may be so, it appears that the brunt of his research revolves around his own personal studies of parental identification. It is quite possible that what is needed to settle the question is more research utilizing both methods and not just one method in obtaining validity. Reliability tests, on a test-retest basis, should be undertaken to determine which measure of identification stands the test of time. The present study did not attempt to determine the reliability of the three measures of identification, but on the basis of the number of inconsistencies found among the correlations in this study greater support is given to the proposed need for such tests.

Because of the number of inconsistencies found among the three measures of parent-child identification when considered separately, it was necessary to combine results on two or more measures to ascertain some degree of agreement in parent-child identification. Thus, for example, if there was a significant correlation between the child's self-perceptions and the child's perception of the father on a certain ACL Need Scale, and if, on the same scale, the father's self-perceptions were significantly correlated with his perceptions of his son, then agreement would exist in the perception of father to son and son to father yielding cross-validation of identification measures. However, in

doing so, no real pattern was found to exist in the similarity of the students and the parents. But more agreement was shown to exist between the correlations of the two perceived or assumed measures of identification taken together than was true between the correlations of the real measure and one or the other assumed measures. This, however, does not necessarily indicate that the assumed measures are more valid or reliable as indices of parent-child identification.

With respect to the male achievement groups, the results showed that the achievers were similar to their fathers on the ACL scale of Exhibition as measured by the agreement on the two perceived indices of parent-child identification. The male underachievers were found to be similar to their fathers on the scales of Intraception and Heterosexuality as measured again by the agreement found on the two perceived measures of identification. Cross-sex identification between the males and their mothers was found between the male underachievers and their mothers on the scale of Heterosexuality — the agreement obtained on the two perceived measures of identification. On the final measure of identification when comparing the number of adjectives attributed exclusively by the students to themselves with the number of adjectives attributed in common to themselves and each parent, it was discovered that the male achievers tended to perceive themselves similar to both parents while the male underachievers did not perceive themselves as similar to either parent. Cross-sex identification of the male achievers was not

found in the study by Shaw and White (1965) in their utilization of the same method. They did, however, find a consistent pattern with respect to male achievers perceiving themselves similar to their fathers while the male underachievers did not.

In the present study, the female achievers were found to be similar to their fathers on the scales of Achievement and Nurturance as measured by the agreement of two separate indices of identification. They were found to be similar to their mothers on the scales of Endurance and Order as measured by the agreement of the two perceived measures of identification. The female underachievers were similar to their fathers on the scale of Intraception and were similar to their mothers on the scales of Exhibition and Deference. There appeared to be a cross-sex identification of both female achievement groups. This was verified on the measure of identification comparing the number of adjectives attributed by the female students exclusively to themselves with the number of adjectives they attributed to themselves in common with each parent. It was found that both the female achievers and the female underachievers described themselves similar to the way they described both of their parents. Shaw and White (1965) reported that the female achievers in their study saw themselves as being closer to their mothers than to their fathers, but that no distinction could be made with the female underachievers.

Present results of the analysis of the number of common adjectives attributed by the fathers to themselves and to their

children revealed a strong tendency towards significance between the fathers' perceptions of themselves in relation to achieving or underachieving sons. The fathers of the achieving males perceived a closer similarity to their sons than did the fathers of the underachieving males towards their sons. No significance was found between the fathers of the female achievement groups in their descriptions of similarity towards their daughters or between the mothers of any of the groups in their descriptions of themselves in relation to their sons and daughters. Shaw and White (1965) found a significant difference between the perceptions of the mothers of the achieving females and those of the mothers of the underachieving females, but they were unable to find any significance in the fathers' perceptions. The different results as found between the present study and the study by Shaw and White could possibly be attributed to the percentage of the participating parents. This difference was found to be greatest in the number of participating female achieving mothers. Both studies agree, however, in that achieving groups of students are more highly identified with their parents than are the under-achieving groups of students.

In comparing the male achievers with the female achievers and the male underachievers with the female underachievers on the number of adjectives attributed by them exclusively to themselves and on the number of adjectives which they attributed in common with their parents, it was found that there were no significant differences between the male achievers and the female

achievers in their perceptions of either parent. But in comparing the differences between the descriptions of the male underachievers and the female underachievers, it was found that the female underachievers rated themselves significantly more similar to both their fathers and their mothers than did the male underachievers. No significant differences were found when comparing the descriptions of the fathers towards the students differentiated by the sex of the students. However, the mothers of the female students, both achievers and underachievers, perceived themselves more similar to their daughters than did the mothers of the male achievers or underachievers perceive themselves similar to their sons. These findings seem to suggest that sex differences are not as significant for the achieving groups of students as they are for the underachieving groups of students. In addition, it appears that parent-child identification may not be a significant factor in the achievement or underachievement of the female students.

In order to investigate the second hypothesis that male achievers identify with an instrumental type of father more than male underachievers, the r to z transformation technique was computed between the correlations of each group on the various ACL Need Scales. According to Parsons (1958) and Parsons and Bales (1955) the instrumental (masculine) role is defined as a behavioral orientation towards goals which transcend the immediate interactional situation. Since the interaction is viewed primarily as a means to an end, the instrumental-role player

cannot be primarily oriented to the immediate emotional responses of others to him. The expressive or feminine role is distinguished by an orientation of giving rewarding responses in order to receive rewarding responses. In explaining this further Johnson (1955) stated that the expressive role-player is oriented toward the relationships among the actors within a system. He is primarily oriented to the attitudes and feelings of those actors toward himself and toward each other. In relating the expressive role to women Johnson said that by being solicitous, appealing, and understanding, a woman seeks to get a pleasurable response by giving pleasure.

In light of the above explanations, the instrumental role is associated with the ACL Need Scales of: Achievement, Dominance, Endurance, Order, Autonomy, and Aggression; the expressive role is associated with the ACL Need Scales of: Nurturance, Affiliation, Succorance and Deference based on the results of Heilbrun (1965a).

The results of this study showing significant differences between the male achievers and the male underachievers, based on one or another measure of identification, did not support the hypothesis that male achievers would identify with an instrumental father more than the male underachievers. On the Achievement and Dominance scales, the male achievers were found to be significantly different from the male underachievers only in relation to similarity with their mothers and not their fathers. On the Nurturance and Affiliation scales, the male

achievers were found to be significantly different from the male underachievers in relation to similarity with their fathers and not their mothers. On the scale of Aggression, the male achievers were found to be significantly different from the male underachievers in relation to similarity with their fathers. The results tended to show that the male achievers, as opposed to the male underachievers, were more similar in an instrumental role with their mothers while being similar to their fathers in both instrumental and expressive roles.

The present results in relation to differences in parental identification between the male achievers and the male underachievers seem to be contradictory to Parsons' theory of parental identification for better adjusted males. It also appears that these results are contrary to the findings of others in relating parental identification to psychological adjustment (Altus, 1948; Cooper, 1962; Crandall, Dewey, Katkovsky, & Preston, 1964; Gebhart & Hoyt, 1958; Goodstein & Heilbrun, 1962; Heilbrun, 1962, 1963, 1965a; Heilbrun & Fromme, 1965; Hollenbeck, 1965; Kimball, 1952). However, it has already been shown that the present sample of male achievers have been found to be better adjusted psychologically than were the male underachievers. The present findings in relation to differences in parental identification between male achievers and male underachievers do not appear to be in contradiction to consistent results with college males on the Masculinity-Femininity scale of the Minnesota Multiphasic Personality Inventory (Dahlstrom & Welsh, 1960) which show the

males to score high indicating cross-sex orientations. Barger and Hall (1964) also found achieving males to have significantly more cross-sex characteristics than underachieving males at the college level. It is quite possible that in order for males to attain scholastic achievement at any level of education, they must orient themselves to functioning with both instrumental (masculine) and expressive (feminine) behaviors. And in doing so, they identify with instrumental mothers and with fathers who are both instrumental and expressive in their own orientations. Parsons (1958), Johnson (1955), and Heilbrun (1965a) all propose that the father is capable of engaging in both instrumental and expressive roles, and that boys retain the capacity to respond in either an expressive or an instrumental manner. Yet they then hypothesize and conclude that better adjusted males identify with an instrumental father. This seems to be a contradiction in their own thinking.

Based on the same proposals of Parsons (1958), Johnson (1955), Heilbrun (1965a), and Heilbrun and Fromme (1965), the female achievers in the present study were hypothesized to identify with an instrumental mother and female underachievers to identify with an excessively expressive mother or a rejecting hostile mother. It has already been shown that the female achievement groups did not differ significantly from one another as to psychological adjustment. The results on the identification measures showed that the female achievers are significantly different from the female underachievers in their similarity to

their fathers on the scale Achievement. Here exists similarity of the female achievers with their fathers on a scale which reflects an instrumental orientation. The female achievers were also found to be significantly different from the female under-achievers in relation to their similarity with their mothers on the scales of Endurance and Order indicating a degree of similarity with their mothers in instrumental orientations. This tends to support the hypothesis for female achievers. The female achievers also differed significantly from the female underachievers in their expressed similarity with their fathers on the scale Dominance. However, this significant difference is more a result of the underachievers' high negative correlation with the fathers than it is a result of the achievers' positive correlation with the fathers. It can be said, however, that the female underachievers were not similar to their fathers on the scale of Dominance as viewed by the fathers. Although partial support for the hypothesis that female achievers are similar to instrumental mothers was indicated by the results, it must be remembered that it was found on only one measure of identification indicating once again the need for reliability studies on the various identification methods.

In comparing the differences in the correlations on the ACL Need Scales between the sexes of the achievers and the under-achievers, a number of significant differences were obtained. With respect to the achieving students, the males were found to be more similar to their fathers than were the females on the

scale of Abasement while the females were more similar to their fathers on the scale of Succorance — both significant differences being obtained in the perceptions of the students towards their fathers and themselves. The father's expressiveness seems to be an important factor in the achievement of the females more so than in the achievement of the males. However, more corroborative evidence is necessary before a definite conclusion could be made. It does appear that a cross-sex identification with the fathers is important to the female achievers as has been suggested previously.

The male achievers were found to be significantly more similar to their mothers on the scale of Aggression than were the female achievers while the females were significantly more similar to their mothers on the scales of Endurance and Order. These significant differences were all obtained in the mothers' perceptions of themselves with their perceptions of their sons and daughters. Therefore, according to the mothers of the achievers there is similarity to their daughters on more subtle aspects of instrumentality but with their sons their similarity is expressed in more outward or forward ways.

With respect to the underachieving students, the females were found to be quite dissimilar to their fathers on the scale of Dominance in difference to the males as viewed by the fathers. This difference was previously observed when comparing the female achievers with the female underachievers. Thus, it can be said that the fathers of the female underachievers believed their

daughters to be passive and not like themselves whereas the fathers of the female achievers and the fathers of the male underachievers did not perceive their children in such a fashion. This aspect of the fathers' perceived dissimilarity towards their underachieving daughters may be a factor in the underachievement of the females, especially since it was found that female achievers perceived similarity to their fathers in expressive and instrumental orientations.

The female underachievers were also found to be more similar to their mothers than the male underachievers on the scale of Deference as perceived by the mothers. The mothers perceived their daughters more than their sons who were underachievers to be like them in a subjugated role which in a sense is in agreement with the fathers' perceptions of their underachieving daughters as being passive. These results with respect to the underachieving females seem to substantiate the research findings of Heilbrun (1965a) and Heilbrun and Fromme (1965) in reference to underachieving females identifying with an excessively expressive mother.

With respect to the fourth hypothesis of the present study, it was proposed that the achievers, both male and female, would have parents who would be in general agreement as to their child-rearing attitudes, whereas the underachievers, both male and female, would have parents who were not in general agreement as to their child-rearing attitudes. The significant difference between the parent groups would be judged according to the

respective correlations of the parents' ratings of their child-rearing attitudes on the PAS. A significant difference was found between the mothers of the male achieving students and the mothers of the male underachieving students in their ratings of selves compared to their ratings of their husbands on the scale related to Ignoring attitudes. More agreement existed in the mothers of the male achievers than the mothers of the male underachievers in their ratings of selves with their husbands on this one scale. A significant difference was found between the fathers of the female achievers and the fathers of the female underachievers in their ratings of selves compared to their ratings of their wives on the scale related to Possessive attitudes. No significant difference was found with the mothers' ratings on this scale.

The only scale which showed both the mothers and the fathers to be in full agreement in their ratings of selves with one another and to show significant differences between the achievement groups was on the scale related to Dominant attitudes. The fathers and the mothers of the female underachievers showed significantly more agreement in their ratings of selves with one another than did the parents of the female achievers. This finding appears to negate the hypothesis as presented.

A definite pattern existed in the significant correlations between the various parental ratings. Although significant differences between the correlations were not obtained in every case in respect to the parents of the differing achievement

groups, it was evident that almost unanimous agreement between the fathers and the mothers' ratings of themselves with one another did appear. This indicates that response sets were present when each parent rated himself with his rating of his spouse. Further documentation is seen in the relative absence of significant correlations in the self-ratings of each parent with one another's self-ratings. Because of the possible existence of response sets in the ratings of the parents, the hypothesis cannot be accepted or rejected as the results stand.

A definite pattern also existed in the significant differences between correlations of the parental ratings with respect to the sex of the student. It was found that in all instances where a significant difference was obtained the parents of the females were more in agreement with one another on their child-rearing attitudes than were the parents of the males regardless of the achievement levels of the students. However, it was also found that the majority of the significant differences existed in the comparisons of each parent's self-ratings with his or her ratings of the respective spouse. Therefore, it is possible that the significant differences in the ratings between the parents of the females and the parents of the males can be attributable to response sets.

In relation to the actual differences between the parents of the achievement groups in their child-rearing attitudes, it was found that the fathers of the male underachievers rated themselves and their spouses as being more possessive of their

sons than did the fathers of the male achievers. This finding seems to be consistent with previous research indicating that parents of male underachievers are more possessive of their sons which inhibits the development of independence necessary for scholastic success (Shaw, 1964; Teahan, 1963). Significant differences in both the fathers and the mothers' attitudes were found between the achievement groups in the previous research. The mothers of the underachieving males were also found to be more possessive of their sons than were the mothers of the achieving males in the investigations of Crandall, Preston, and Rabson (1960) and Hall (1964). The present results only found significance in the fathers' ratings of themselves and in their ratings of their spouses and not in the ratings of the mothers.

The fathers of the female achievers rated themselves as being significantly more dominant in their attitudes towards their daughters than did the fathers of the female underachievers. This finding would indicate that the fathers of the female achievers are less permissive with their daughters than are the fathers of the female underachievers. The present results are consistent with those of Shaw (1960, 1964). Teahan (1963) found, however, that the fathers of both the female achievers and the female underachievers were dominant in their attitudes towards their daughters.

In relation to the differences in the child-rearing attitudes between the parents of the male students and the parents of the female students, it was discovered that the fathers of

the female achievers rated themselves and their wives as being possessive of their daughters more than the fathers of the male achievers rated themselves and their wives as being possessive of their sons. It appears that paternal possessiveness may be conducive to achievement in females but that it is a possible detrimental factor in the achievement of males. No significant differences were found in the parental child-rearing attitudes between the parents of the male underachievers and the parents of the female underachievers.

While Teahan (1963) found no differences between the achieving and the underachieving students in their perceptions of the child-rearing attitudes of the parents as measured by the students' responding to the PAS as if they were the parents, the present results show that there were significant differences between the achievement groups of students in their perceptions of their parents' child-rearing practices as measured by the CRPBI. Teahan believed that his inability to find significant differences was related to the intellectualized standards of his college sample. While this may have been true, it is also felt by the present author that the CRPBI is better equipped to measure the perceptions of the students than is the PAS. In responding to the PAS students have to judge parental attitudes from an adult plane since the PAS is geared to measuring the attitudes of parents from their viewpoints. The CRPBI, however, is geared to measuring the parents' child-rearing practices as perceived by the students directly and from their own frame of

reference.

Results in the present investigation were found to be consistent in that the male underachievers perceived their fathers to be significantly more permissive or lax in their discipline than did the male achievers. This finding supports the statement made by Shaw (1960) that the lack of parental supervision contributes to the underachievement syndrome. The male underachievers were also found to be significantly different from the male achievers in that they perceived their mothers to be controlling in a hostile manner. Hall (1964) also discovered that the mothers of male underachievers at the grade school level were significantly higher on a scale of punishment-aggression than were the mothers of achieving male students. In their perceptions of both fathers and mothers the male underachievers were significantly different from the male achievers in that they felt that both parents instilled a persistent amount of anxiety in them by their actions. It is possible that the anxiety is aroused by the male underachievers not having controls placed upon them by their fathers and by having to relate to a hostile mother. This may also have relevance to the fact that a cross-sex identification was not found for the male underachievers. They possibly revert from identifying in positive ways with their mothers and turn to identification with stereotyped masculine images which then is related to underachievement in school.

The female underachievers were found to be significantly different from the female achievers in that they perceived their

fathers to be more inconsistent in their discipline. Whereas the lack of paternal controls seems to be a variable in respect to male underachievement, it is the inconsistency of the paternal controls which seems to be related to female underachievement. The female achievers consistently perceived their fathers to be more accepting of them than did the female underachievers. The underachieving females felt that their fathers rejected them and were detached from them in a hostile manner. Acceptance by the fathers of female achievers has been found by a number of investigators (Barwick & Arbuckle, 1962; Crandall et al., 1964; Koenigsberg, 1962; Peppin, 1963). There were no significant differences found between the female achievement groups in their perceptions of their mothers' child-rearing practices. Although female achievers possibly identify with an instrumental mother as suggested by this investigation and others, they may do so when they have a father who can be expressive towards them as indicated by the results on the CRPBI and at the same time be instrumental towards them as indicated on the PAS. Thus cross-sex identification with parents who are both instrumental and expressive in their behaviors towards their children appears to be conducive to achievement in both males and females.

A general pattern evolved when comparing the ratings of the males with the ratings of the females towards the child-rearing practices of their parents. The females consistently perceived both parents to be positively oriented towards them more than did the males regardless of the achievement level of

the students. This finding could be indicative of females having a keener perception of the emotionality of interpersonal relationships.

In concluding, the results have pointed to an acceptance of the first hypothesis for the male students — there was found a significant difference in the psychological adjustment between male achievers and male underachievers — the achievers were found to be better adjusted in general as well as over a number of individual scales. Significant differences were not found between the female achievement groups.

Partial support was presented in relation to the second hypothesis — the male achievers were found to be similar to their fathers in not only an instrumental manner but also in an expressive orientation. Cross-sex identification was present for the male achievers but not for the male underachievers.

Evidence was shown that female achievers tended to be like their mothers in an instrumental manner. The differences between the female achievement groups were based on the perceptions of the mothers.

The fourth hypothesis stating that parents of achieving students would be in greater agreement in their attitudes about child-rearing than would the parents of underachieving students, is neither accepted nor rejected based on the suspected response sets which were thought to have been involved in both parents' ratings of themselves with one another.

Support was given to the fifth hypothesis in that the male

achievers perceived their parents' child-rearing practices to be significantly different from the perceptions of the male under-achievers. The female achievers, however, were found to differ from the female underachievers in their perceptions of their fathers' child-rearing practices. No significant differences were found between the female achievement groups with respect to their perceptions of their mothers' child-rearing practices.

Summary

The purpose of this study was to examine academic achievement against underachievement on the junior high school level. The psychological adjustment of the students, their identification with their parents, and parental attitudes concerning the rearing of children were investigated as to their contributing influence upon the achievement or underachievement of the students.

102 male and female subjects were selected from the seventh and eighth grades of a Catholic elementary school. They were divided into four groups, by sex and by achievement level, based on their IQ and GPA scores. The students were administered the California Psychological Inventory, the Adjective Check List, and the Children's Report of Parental Behavior Inventory. Their participating parents were administered the Adjective Check List and the Parent Attitude Survey.

The male achievers were found to be psychologically better adjusted than the male underachievers. Male achievers identified with an instrumental, expressive father. Female achievers tended to identify with an instrumental mother. Male achievers perceived their fathers to be less permissive than did the male underachievers, while the underachievers perceived their mothers to be more hostile. Female achievers perceived their fathers to be more accepting and more consistent in their discipline than did the female underachievers. Sex differences were found.

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APPENDIX

- 1) Parent Attitude Survey
- 2) Children's Report of Parental Behavior Inventory
- 3) California Psychological Inventory
- 4) Adjective Check List

PARENT ATTITUDE SURVEY

Read each of the statements below. Rate each statement as to whether you Strongly Agree (SA), Mildly Agree (MA), Mildly Disagree (MD), or Strongly Disagree (SD). There are no right or wrong answers, so answer according to your own convictions. Work as rapidly as you can. Draw a circle around the corresponding letter abbreviations that best expresses your feeling. Choose only one answer. Then underline the answer which you believe your spouse would indicate as his (her) conviction. Therefore, circle your own conviction and underline that of your spouse's.

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|--|----|----|----|----|
| 1. A child should be seen and not heard | SA | MA | MD | SD |
| 2. Parents should sacrifice everything for their children | SA | MA | MD | SD |
| 3. Children should be allowed to do as they please | SA | MA | MD | SD |
| 4. A child should not plan to enter any occupation his parents don't approve of. | SA | MA | MD | SD |
| 5. Children need some of the meanness taken out of them | SA | MA | MD | SD |
| 6. A child should have strict discipline in order to develop a fine, strong character. | SA | MA | MD | SD |
| 7. The mother rather than the father should be responsible for discipline | SA | MA | MD | SD |
| 8. Children should be "babied" until they are several years old. | SA | MA | MD | SD |
| 9. Children have the right to play with whom-ever they like | SA | MA | MD | SD |
| 10. Independent and mature children are less lovable than those children who openly and obviously want and need their parents. | SA | MA | MD | SD |
| 11. Children should be forbidden to play with youngsters whom their parents do not approve of. | SA | MA | MD | SD |
| 12. A good way to discipline a child is to tell him his parents won't love him any more if he is bad | SA | MA | MD | SD |
| 13. Severe discipline is essential in the training of children. | SA | MA | MD | SD |
| 14. Parents cannot help it if their children are naughty. | SA | MA | MD | SD |
| 15. Jealousy among brothers and sisters is a very unhealthy thing | SA | MA | MD | SD |
| 16. Children should be allowed to go to any school their friends go to | SA | MA | MD | SD |
| 17. No child should ever set his will against that of his parents. | SA | MA | MD | SD |

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|---|----|----|----|----|
| 18. The Biblical command that children must obey their parents should be completely adhered to | SA | MA | MD | SD |
| 19. It is wicked for children to disobey their parents. | SA | MA | MD | SD |
| 20. A child should feel a deep sense of obligation always to act in accord with the wishes of his parents. | SA | MA | MD | SD |
| 21. Children should not be punished for disobedience. | SA | MA | MD | SD |
| 22. Children who are gentlemanly or ladylike are preferable to those who are tomboys or "regular guys." | SA | MA | MD | SD |
| 23. Strict discipline weakens a child's personality. | SA | MA | MD | SD |
| 24. Children should always be loyal to their parents above anyone else. | SA | MA | MD | SD |
| 25. Children should be steered away from the temptations of religious beliefs other than those accepted by the family. | SA | MA | MD | SD |
| 26. The weaning of a child from the emotional ties to its parents begins at birth. | SA | MA | MD | SD |
| 27. Parents are not entitled to the love of their children unless they earn it | SA | MA | MD | SD |
| 28. Parents should never try to break a child's will | SA | MA | MD | SD |
| 29. Children should not be required to take orders from parents. | SA | MA | MD | SD |
| 30. Children should be allowed to choose their own religious beliefs. | SA | MA | MD | SD |
| 31. Children should not interrupt adult conversation | SA | MA | MD | SD |
| 32. The most important consideration in planning the activities of the home should be the needs and interests of children | SA | MA | MD | SD |
| 33. Quiet children are much nicer than little chatter-boxes. | SA | MA | MD | SD |
| 34. It is sometimes necessary for the parent to break the child's will | SA | MA | MD | SD |
| 35. Children usually know ahead of time whether or not parents will punish them for their actions. | SA | MA | MD | SD |
| 36. Children resent discipline | SA | MA | MD | SD |
| 37. Children should not be permitted to play with youngsters from the "wrong side of the tracks". | SA | MA | MD | SD |
| 38. When the parent speaks, the child should obey | SA | MA | MD | SD |
| 39. Mild discipline is best. | SA | MA | MD | SD |

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|---|----|----|----|----|
| 40. The best child is one who shows lots of affection for his mother | SA | MA | MD | SD |
| 41. A child should be taught that his parents always know what is best | SA | MA | MD | SD |
| 42. It is better for children to play at home than to visit other children | SA | MA | MD | SD |
| 43. Most children should have more discipline than they get. | SA | MA | MD | SD |
| 44. A child should do what he is told to do, without stopping to argue about it | SA | MA | MD | SD |
| 45. Children should fear their parents to some degree | SA | MA | MD | SD |
| 46. A child should always love his parents above everyone else. | SA | MA | MD | SD |
| 47. Children who indulge in sex play become adult sex criminals. | SA | MA | MD | SD |
| 48. Children should be allowed to make only minor decisions for themselves | SA | MA | MD | SD |
| 49. A child should always accept the decision of his parents | SA | MA | MD | SD |
| 50. Children who readily accept authority are much nicer than those who try to be dominant themselves. | SA | MA | MD | SD |
| 51. Parents should always have complete control over the actions of their children | SA | MA | MD | SD |
| 52. When they can't have their own way, children usually try to bargain or reason with parents. | SA | MA | MD | SD |
| 53. The shy child is worse off than the one who masturbates. | SA | MA | MD | SD |
| 54. Children should accept the religion of their parents without question | SA | MA | MD | SD |
| 55. The child should not question the commands of his parents | SA | MA | MD | SD |
| 56. Children who fight with their brothers and sisters are generally a source of great irritation and annoyance to their parents. . | SA | MA | MD | SD |
| 57. Children should not be punished for doing anything they have seen their parents doing. | SA | MA | MD | SD |
| 58. Jealousy is just a sign of selfishness . . . | SA | MA | MD | SD |
| 59. Children should be taught the value of money early. | SA | MA | MD | SD |
| 60. A child should be punished for contradicting his parents. | SA | MA | MD | SD |
| 61. Children should have lots of parental supervision. | SA | MA | MD | SD |
| 62. A parent should see to it that his child plays only with the right kind of children | SA | MA | MD | SD |

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|--|----|----|----|----|
| 63. Babies are more fun for parents than older children are | SA | MA | MD | SD |
| 64. Parents should supervise a child's selection of playmates very carefully. | SA | MA | MD | SD |
| 65. No one should expect a child to respect parents who nag and scold. | SA | MA | MD | SD |
| 66. A child should always believe what his parents tell him | SA | MA | MD | SD |
| 67. Children should usually be allowed to have their own way. | SA | MA | MD | SD |
| 68. A good way to discipline a child is to cut down his allowance | SA | MA | MD | SD |
| 69. Children should not be coaxed or petted into obedience. | SA | MA | MD | SD |
| 70. A child should be shamed into obedience if he won't listen to reason. | SA | MA | MD | SD |
| 71. In the long run it is better, after all, for a child to be kept fairly close to his mother's apron strings | SA | MA | MD | SD |
| 72. A good whipping now and then never hurt any child. | SA | MA | MD | SD |
| 73. Masturbation is the worst bad habit that a child can form | SA | MA | MD | SD |
| 74. A child should never keep a secret from his parents. | SA | MA | MD | SD |
| 75. Parents are generally too busy to answer all a child's questions. | SA | MA | MD | SD |
| 76. The children who make the best adults are those who obey all the time. | SA | MA | MD | SD |
| 77. It is important for children to have some kind of religious upbringing | SA | MA | MD | SD |
| 78. Children should be allowed to manage their affairs with little supervision from adults. | SA | MA | MD | SD |
| 79. Parents should never enter a child's room without permission | SA | MA | MD | SD |
| 80. It is best to give children the impression that parents have no faults. | SA | MA | MD | SD |
| 81. Children should not annoy their parents with their unimportant problems | SA | MA | MD | SD |
| 82. Children should give their parents unquestioning obedience. | SA | MA | MD | SD |
| 83. Sex is one of the greatest problems to be contended with in children | SA | MA | MD | SD |
| 84. Children should have as much freedom as their parents allow themselves | SA | MA | MD | SD |
| 85. Children should do nothing without the consent of their parents | SA | MA | MD | SD |

PARENT BEHAVIOR INVENTORY

INSTRUCTIONS

We are interested in learning more about the different experiences people have had in their families. We are, therefore, asking a number of people to report their experiences during childhood.

First answer the questions about yourself and your family listed on the next page. Then read each item on the following pages and circle the answer that most closely describes the way each of your parents acts toward you. BE SURE TO MARK EACH ITEM FOR EACH PARENT.

If you think the item is LIKE your parent, circle L.

If you think the item is SOMEWHAT LIKE your parent, circle SL.

If you think the item is NOT LIKE your parent, circle NL.

	<u>FATHER</u>			<u>MOTHER</u>		
	Some			Some		
	What	Not		What	Not	
	Like	Like	Like	Like	Like	Like
Makes me feel better after talking over my worries with him or her.....	L	SL	NL	L	SL	NL
Likes to talk to me and be with me much of the time.....	L	SL	NL	L	SL	NL
Isn't very patient with me.....	L	SL	NL	L	SL	NL
Sees to it that I know exactly what I may or may not do.....	L	SL	NL	L	SL	NL
Says I'm very good natured.....	L	SL	NL	L	SL	NL
Wants to know exactly where I am and what I am doing.....	L	SL	NL	L	SL	NL
Decides what friends I can go around with.....	L	SL	NL	L	SL	NL
Soon forgets a rule he or she has made.....	L	SL	NL	L	SL	NL
Doesn't mind if I kid him or her about things.....	L	SL	NL	L	SL	NL
Is easy with me.....	L	SL	NL	L	SL	NL
Doesn't talk with me very much.....	L	SL	NL	L	SL	NL
Will not talk to me when I displease him or her.....	L	SL	NL	L	SL	NL
Seems to see my good points more than my faults.....	L	SL	NL	L	SL	NL
Doesn't let me go places because something might happen to me.....	L	SL	NL	L	SL	NL
Thinks my ideas are silly.....	L	SL	NL	L	SL	NL
Is very strict with me.....	L	SL	NL	L	SL	NL
Tells me I'm good looking.....	L	SL	NL	L	SL	NL
Feels hurt when I don't follow advice.....	L	SL	NL	L	SL	NL
Is always telling me how I should behave.....	L	SL	NL	L	SL	NL
Usually doesn't find out about my misbehavior.....	L	SL	NL	L	SL	NL
Enjoys it when I bring friends to my home.....	L	SL	NL	L	SL	NL
Worries about how I will turn out, because he or she takes anything bad I do seriously.....	L	SL	NL	L	SL	NL
Spends very little time with me.....	L	SL	NL	L	SL	NL
Allows me to go out as often as I please.....	L	SL	NL	L	SL	NL
Almost always speaks to me with a warm and friendly voice.....	L	SL	NL	L	SL	NL
Is always thinking of things that will please me.....	L	SL	NL	L	SL	NL
Says I'm a big problem.....	L	SL	NL	L	SL	NL
Believes in having a lot of rules and sticking to them.....	L	SL	NL	L	SL	NL

	<u>FATHER</u>			<u>MOTHER</u>		
	Some What Like	Not Like	Like	Some What Like	Not Like	Like
Tells me how much he or she loves me.....	L	SL	NL	L	SL	NL
Is always checking on what I've been doing at school or at play.....	L	SL	NL	L	SL	NL
Keeps reminding me about things I am not allowed to do.....	L	SL	NL	L	SL	NL
Punishes me for doing some- thing one day, but ignores it the next.....	L	SL	NL	L	SL	NL
Allows me to tell him if I think my ideas are better than his or hers.....	L	SL	NL	L	SL	NL
Lets me off easy when I do something wrong.....	L	SL	NL	L	SL	NL
Almost never brings me a surprise or present.....	L	SL	NL	L	SL	NL
Sometimes when he or she disapproves, doesn't say anything but is cold and distant for a while.....	L	SL	NL	L	SL	NL
Understands my problems and my worries.....	L	SL	NL	L	SL	NL
Seems to regret that I am growing up and am spending more time away from home.....	L	SL	NL	L	SL	NL
Forgets to help me when I need it.....	L	SL	NL	L	SL	NL
Sticks to a rule instead of allowing a lot of exceptions.....	L	SL	NL	L	SL	NL
Likes to talk about what he or she has read about me.....	L	SL	NL	L	SL	NL
Thinks I'm not grateful when I don't obey.....	L	SL	NL	L	SL	NL
Tells me exactly how to do my work.....	L	SL	NL	L	SL	NL
Doesn't pay much attention to my misbehavior.....	L	SL	NL	L	SL	NL
Likes me to choose my own way to do things.....	L	SL	NL	L	SL	NL
If I break a promise, doesn't trust me again for a long time.....	L	SL	NL	L	SL	NL
Doesn't seem to think of me very often.....	L	SL	NL	L	SL	NL
Doesn't tell me what time to be home when I go out.....	L	SL	NL	L	SL	NL
Enjoys talking things over with me.....	L	SL	NL	L	SL	NL

	<u>FATHER</u>			<u>MOTHER</u>		
	Some	What	Not	Some	What	Not
	Like	Like	Like	Like	Like	Like
Gives me a lot of care and attention.....	L	SL	NL	L	SL	NL
Sometimes wishes he or she didn't have any children.....	L	SL	NL	L	SL	NL
Believes that all my bad behavior should be punished in some way.....	L	SL	NL	L	SL	NL
Hugs and kisses me often.....	L	SL	NL	L	SL	NL
Asks me to tell everything that happens when I'm away from home.....	L	SL	NL	L	SL	NL
Doesn't forget very quickly the things I do wrong.....	L	SL	NL	L	SL	NL
Sometimes allows me to do things that he or she says are wrong.....	L	SL	NL	L	SL	NL
Wants me to tell him or her about it if I don't like the way he or she treats me.....	L	SL	NL	L	SL	NL
Can't say no to anything I want.....	L	SL	NL	L	SL	NL
Thinks I am just someone to "put up with.".....	L	SL	NL	L	SL	NL
Speaks to me in a cold, matter-of-fact voice when I offend him or her.....	L	SL	NL	L	SL	NL
Enjoys going on drives, trips or visits with me.....	L	SL	NL	L	SL	NL
Worries about me when I'm away.....	L	SL	NL	L	SL	NL
Forgets to get me things I need.....	L	SL	NL	L	SL	NL
Gives me hard punishments.....	L	SL	NL	L	SL	NL
Believes in showing his or her love for me.....	L	SL	NL	L	SL	NL
Feels hurt by the things I do.....	L	SL	NL	L	SL	NL
Tells me how to spend my free time.....	L	SL	NL	L	SL	NL
Doesn't insist that I do my homework.....	L	SL	NL	L	SL	NL
Lets me help to decide how to do things we're working on.....	L	SL	NL	L	SL	NL
Says some day I'll be punished for my bad behavior.....	L	SL	NL	L	SL	NL
Doesn't seem to enjoy doing things with me.....	L	SL	NL	L	SL	NL
Gives me as much freedom as I want.....	L	SL	NL	L	SL	NL

	<u>FATHER</u>			<u>MOTHER</u>		
	Like	Some What Like	Not Like	Like	Some What Like	Not Like
Smiles at me very often.....	L	SL	NL	L	SL	NL
Often gives up something to get something for me.....	L	SL	NL	L	SL	NL
Is always getting after me.....	L	SL	NL	L	SL	NL
Sees to it that I'm on time coming home from school or for meals.....	L	SL	NL	L	SL	NL
Tries to treat me as an equal.....	L	SL	NL	L	SL	NL
Keeps a careful check on me to make sure I have the right kind of friends.....	L	SL	NL	L	SL	NL
Keeps after me about finishing my work.....	L	SL	NL	L	SL	NL
Depends upon his or her mood whether a rule is enforced or not.....	L	SL	NL	L	SL	NL
Makes me feel free when I'm with him or her.....	L	SL	NL	L	SL	NL
Excuses my bad conduct.....	L	SL	NL	L	SL	NL
Doesn't show that he or she loves me.....	L	SL	NL	L	SL	NL
Is less friendly with me if I don't see things his or her way.....	L	SL	NL	L	SL	NL
Is able to make me feel better when I am upset.....	L	SL	NL	L	SL	NL
Becomes very involved in my life.....	L	SL	NL	L	SL	NL
Almost always complains about what I do.....	L	SL	NL	L	SL	NL
Punishes me when I don't obey.....	L	SL	NL	L	SL	NL
Always listens to my ideas and opinions.....	L	SL	NL	L	SL	NL
Tells me how much he or she has suffered for me.....	L	SL	NL	L	SL	NL
Would like to be able to tell me what to do all the time....	L	SL	NL	L	SL	NL
Doesn't check up to see whether I have done what he or she told me.....	L	SL	NL	L	SL	NL
Asks me what I think about how we should do things.....	L	SL	NL	L	SL	NL
Thinks and talks about my misbehavior long after it's over.....	L	SL	NL	L	SL	NL
Doesn't share many activities with me.....	L	SL	NL	L	SL	NL
Lets me go any place I please without asking.....	L	SL	NL	L	SL	NL
Enjoys doing things with me.....	L	SL	NL	L	SL	NL

	<u>FATHER</u>			<u>MOTHER</u>		
	<u>Some</u>			<u>Some</u>		
	<u>Like</u>	<u>What</u>	<u>Not</u>	<u>Like</u>	<u>What</u>	<u>Not</u>
	Like	Like	Like	Like	Like	Like
Makes me feel like the most important person in his or her life.....	L	SL	NL	L	SL	NL
Gets cross and angry about little things I do.....	L	SL	NL	L	SL	NL
Believes in punishing me to correct and improve my manners.....	L	SL	NL	L	SL	NL
Often has long talks with me about the causes and reasons for things.....	L	SL	NL	L	SL	NL
Wants to know with whom I've been when I've been out.....	L	SL	NL	L	SL	NL
Is unhappy that I'm not better in school than I am.....	L	SL	NL	L	SL	NL
Only keeps rules when it suits him or her.....	L	SL	NL	L	SL	NL
Really wants me to tell him or her just how I feel about things.....	L	SL	NL	L	SL	NL
Lets me stay up late if I keep asking.....	L	SL	NL	L	SL	NL
Almost never goes on Sunday drives or picnics with me.....	L	SL	NL	L	SL	NL
Will avoid looking at me when I've disappointed him or her..	L	SL	NL	L	SL	NL
Enjoys working with me in the house or yard.....	L	SL	NL	L	SL	NL
Usually makes me the center of his or her attention at home.....	L	SL	NL	L	SL	NL
Often blows his or her top when I bother him or her.....	L	SL	NL	L	SL	NL
Almost always punishes me in some way when I am bad.....	L	SL	NL	L	SL	NL
Often praises me.....	L	SL	NL	L	SL	NL
Says if I loved him or her, I'd do what he or she wants me to do.....	L	SL	NL	L	SL	NL
Gets cross and nervous when I'm noisy around the house....	L	SL	NL	L	SL	NL
Seldom insists that I do anything.....	L	SL	NL	L	SL	NL
Tries to understand how I see things.....	L	SL	NL	L	SL	NL
Says that some day I'll be sorry that I wasn't better as a child.....	L	SL	NL	L	SL	NL
Complains that I get on his or her nerves.....	L	SL	NL	L	SL	NL

	<u>FATHER</u>			<u>MOTHER</u>		
	<u>Some</u>			<u>Some</u>		
	Like	What	Not	Like	What	Not
	Like	Like	Like	Like	Like	Like
Lets me dress in any way I						
please.....	L	SL	NL	L	SL	NL
Comforts me when I'm afraid.....	L	SL	NL	L	SL	NL
Enjoys staying at home with						
me more than going out						
with friends.....	L	SL	NL	L	SL	NL
Doesn't work with me.....	L	SL	NL	L	SL	NL
Insists that I must do exactly						
as I'm told.....	L	SL	NL	L	SL	NL
Encourages me to read.....	L	SL	NL	L	SL	NL
Asks other people what I do						
away from home.....	L	SL	NL	L	SL	NL
Loses his or her temper with						
me when I don't help around						
the house.....	L	SL	NL	L	SL	NL
Frequently changes the rules						
I am supposed to follow.....	L	SL	NL	L	SL	NL
Allows me to have friends						
at my home often.....	L	SL	NL	L	SL	NL
Does not insist I obey if						
I complain or protest.....	L	SL	NL	L	SL	NL
Hardly notices when I am						
good at home or in school.....	L	SL	NL	L	SL	NL
If I take someone else's side						
in an argument, is cold and						
distant to me.....	L	SL	NL	L	SL	NL
Cheers me up when I am sad.....	L	SL	NL	L	SL	NL
Does not approve of my						
spending a lot of time						
away from home.....	L	SL	NL	L	SL	NL
Doesn't get me things unless						
I ask over and over again.....	L	SL	NL	L	SL	NL
Sees to it that I obey when						
he or she tells me something..	L	SL	NL	L	SL	NL
Tells me where to find out						
more about things I want to						
know.....	L	SL	NL	L	SL	NL
Tells me of all the things he						
or she has done for me.....	L	SL	NL	L	SL	NL
Wants to control whatever						
I do.....	L	SL	NL	L	SL	NL
Does not bother to enforce						
rules.....	L	SL	NL	L	SL	NL
Makes me feel at ease when I'm						
with him or her.....	L	SL	NL	L	SL	NL
Thinks that any misbehavior is						
very serious and will have						
future consequences.....	L	SL	NL	L	SL	NL
Is always finding fault with						
me.....	L	SL	NL	L	SL	NL
Allows me to spend my money in						
any way I like.....	L	SL	NL	L	SL	NL

	<u>FATHER</u>			<u>MOTHER</u>		
	Like	Some What Like	Not Like	Like	Some What Like	Not Like
Often speaks of the good things						
I do.....	L	SL	NL	L	SL	NL
Makes his or her whole life center about his or her children.....	L	SL	NL	L	SL	NL
Doesn't seem to know what I need or want.....	L	SL	NL	L	SL	NL
Sees to it that I keep my clothes neat, clean, and in order.....	L	SL	NL	L	SL	NL
Is happy to see me when I come home from school or play.....	L	SL	NL	L	SL	NL
Questions me in detail about what my friends and I discuss.	L	SL	NL	L	SL	NL
Doesn't give me any peace until I do what he or she says.....	L	SL	NL	L	SL	NL
Insists I follow a rule one day and then forgets about it the next.....	L	SL	NL	L	SL	NL
Gives me the choice of what to do whenever possible.....	L	SL	NL	L	SL	NL
I can talk him or her out of an order, if I complain.....	L	SL	NL	L	SL	NL
Often makes fun of me.....	L	SL	NL	L	SL	NL
If I've hurt his or her feelings, stops talking to me until I please him or her again.....	L	SL	NL	L	SL	NL
Has a good time at home with me.....	L	SL	NL	L	SL	NL
Worries that I can't take care of myself unless he or she is around.....	L	SL	NL	L	SL	NL
Acts as though I'm in the way...	L	SL	NL	L	SL	NL
If I do the least little thing that I shouldn't, punishes me.....	L	SL	NL	L	SL	NL
Hugged or kissed me goodnight when I was small.....	L	SL	NL	L	SL	NL
Says if I really cared for him or her, I would not do things that cause him or her to worry.	L	SL	NL	L	SL	NL
Is always trying to change me...	L	SL	NL	L	SL	NL
Lets me get away without doing work I had been given to do.....	L	SL	NL	L	SL	NL
Is easy to talk to.....	L	SL	NL	L	SL	NL
Says that sooner or later we always pay for bad behavior...	L	SL	NL	L	SL	NL
Wishes I were a different kind of person.....	L	SL	NL	L	SL	NL

	<u>FATHER</u>			<u>MOTHER</u>		
	Some What Like	Not Like	Like	Some What Like	Not Like	Like
Lets me go out any evening						
I want.....	L	SL	NL	L	SL	NL
Seems proud of the things						
I do.....	L	SL	NL	L	SL	NL
Spends almost all of his or her						
free time with his or her						
children.....	L	SL	NL	L	SL	NL
Tells me to quit "hanging						
around the house" and go						
Somewhere.....	L	SL	NL	L	SL	NL
I have certain jobs to do and						
am not allowed to do anything						
else until they are done.....	L	SL	NL	L	SL	NL
Is very interested in what I						
am learning at school.....	L	SL	NL	L	SL	NL
Almost always wants to know who						
phoned me or wrote to me and						
what they said.....	L	SL	NL	L	SL	NL
Doesn't like the way I act						
at home.....	L	SL	NL	L	SL	NL
Changes his or her mind to						
make things easier for						
himself or herself.....	L	SL	NL	L	SL	NL
Lets me do things that other						
children my age do.....	L	SL	NL	L	SL	NL
Can be talked into things						
easily.....	L	SL	NL	L	SL	NL
Often seems glad to get away						
from me for a while.....	L	SL	NL	L	SL	NL
When I upset him or her, won't						
have anything to do with me						
until I find a way to make up.	L	SL	NL	L	SL	NL
Isn't interested in changing						
me, but likes me as I am.....	L	SL	NL	L	SL	NL
Wishes I would stay at home						
where he or she could take						
care of me.....	L	SL	NL	L	SL	NL
Makes me feel I'm not loved.....	L	SL	NL	L	SL	NL
Has more rules than I can						
remember, so is often						
punishing me.....	L	SL	NL	L	SL	NL
Says I make him or her happy....	L	SL	NL	L	SL	NL
When I don't do as he or she						
wants, says I'm not grateful						
for all he or she has done						
for me.....	L	SL	NL	L	SL	NL
Doesn't let me decide things for						
myself.....	L	SL	NL	L	SL	NL
Lets me get away with a lot						
of things.....	L	SL	NL	L	SL	NL
Tries to be a friend rather						
than a boss.....	L	SL	NL	L	SL	NL

	<u>FATHER</u>			<u>MOTHER</u>		
	<u>Some</u>			<u>Some</u>		
	What	Not		What	Not	
	Like	Like	Like	Like	Like	Like
Will talk to me again and again						
about anything bad I do.....	L	SL	NL	L	SL	NL
Is never interested in meeting						
or talking with my friends....	L	SL	NL	L	SL	NL
Lets me do anything I like						
to do.....	L	SL	NL	L	SL	NL

CPI

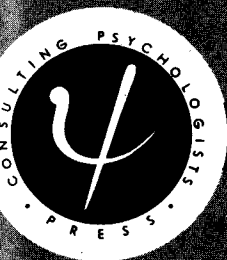
California Psychological Inventory

DAVID L. DODGE, Ph.D.

DIRECTIONS:

This booklet contains a series of statements. Read each one, decide how you feel about it, and then mark your answer *on the special answer sheet*. **MAKE NO MARKS ON THE TEST BOOKLET.** If you *agree* with a statement, or feel that it is true about you, answer **TRUE**. If you *disagree* with a statement, or feel that it is not true about you, answer **FALSE**.

If you find a few questions which you cannot or prefer not to answer, they may be omitted. However, in marking your answers on the answer sheet, make sure that the number of the statement is the same as the number on the answer sheet.



1. I enjoy social gatherings just to be with people.
2. The only interesting part of the newspaper is the "funnies."
3. I looked up to my father as an ideal man.
4. A person needs to "show off" a little now and then.
5. Our thinking would be a lot better off if we would just forget about words like "probably," "approximately," and "perhaps."
6. I have a very strong desire to be a success in the world.
7. When in a group of people I usually do what the others want rather than make suggestions.
8. I liked "Alice in Wonderland" by Lewis Carroll.
9. I usually go to the movies more than once a week.
10. Some people exaggerate their troubles in order to get sympathy.
11. People can pretty easily change me even though I thought that my mind was already made up on a subject.
12. I often feel that I made a wrong choice in my occupation.
13. I am very slow in making up my mind.
14. I always follow the rule: business before pleasure.
15. Several times a week I feel as if something dreadful is about to happen.
16. There's no use in doing things for people; you only find that you get it in the neck in the long run.
17. I would like to be a journalist.
18. A person who doesn't vote is not a good citizen.
19. I think I would like the work of a building contractor.
20. I have had very peculiar and strange experiences.
21. My daily life is full of things that keep me interested.
22. When a person "pads" his income report so as to get out of some of his taxes it is just as bad as stealing money from government.
23. In most ways the poor man is better off than the rich man.
24. I always like to keep my things neat and tidy and in good order.
25. Clever, sarcastic people make me feel uncomfortable.
26. It's a good thing to know people in the places so you can get traffic tags, and things, taken care of.
27. It makes me feel like a failure when I see the success of someone I know well.
28. I think I would like the work of a designer.
29. I am often said to be hotheaded.
30. I gossip a little at times.
31. I doubt whether I would make a leader.
32. I tend to be on my guard with people; I am somewhat more friendly than I have expected.
33. Usually I would prefer to work with women.
34. There are a few people who just can't be trusted.
35. I become quite irritated when I see someone spit on the sidewalk.
36. When I was going to school I played sports quite often.
37. I have very few fears compared to most people's friends.
38. It is hard for me to start a conversation with strangers.
39. I must admit that I enjoy playing practical jokes on people.
40. I get very nervous if I think that someone is watching me.
41. For most questions there is just one answer, once a person is able to get the facts.
42. I sometimes pretend to know more than I really do.
43. It's no use worrying my head about public affairs; I can't do anything about them anyhow.
44. Sometimes I feel like smashing things.
45. As a child I used to be able to go to my parents with my problems.
46. I think I would like the work of a school teacher.
47. Women should not be allowed to drink in cocktail bars.
48. Most people would tell a lie if they could gain by it.
49. When someone does me a wrong I feel I should pay him back if I can, just for the principle of the thing.
50. I seem to be about as capable and smart as most others around me.
51. Every family owes it to the city to keep their sidewalks cleared in the winter and their lawn mowed in the summer.
52. I usually take an active part in the entertainment at parties.
53. I think I would enjoy having authority over other people.
54. I find it hard to keep my mind on a task or job.
55. Some of my family have quick tempers.
56. I hate to be interrupted when I am working on something.
57. I have sometimes stayed away from another person because I feared doing or saying something that I might regret afterwards.
58. I get very tense and anxious when I think other people are disapproving of me.
59. The trouble with many people is that they don't take things seriously enough.
60. I have often met people who were supposed to be experts who were no better than I.
61. I liked school.
62. I think Lincoln was greater than Washington.
63. It is always a good thing to be frank.
64. A windstorm terrifies me.
65. I think I would like the work of a clerk in a large department store.
66. Sometimes I feel like swearing.
67. I feel sure that there is only one true religion.
68. I am embarrassed by dirty stories.
69. I would disapprove of anyone's drinking to the point of intoxication at a party.
70. Sometimes I cross the street just to avoid meeting someone.
71. I get excited very easily.
72. I used to keep a diary.
73. Maybe some minority groups do get rough treatment, but it's no business of mine.
74. It is very hard for me to tell anyone about myself.
75. We ought to worry about our own country and let the rest of the world take care of itself.
76. I often feel as if the world was just passing me by.
77. When I get bored I like to stir up some excitement.
78. I like to boast about my achievements every now and then.
79. I am afraid of deep water.
80. There have been times when I have been very angry.
81. I must admit I often try to get my own way regardless of what others may want.
82. I think I would like the work of a garage mechanic.
83. I usually feel nervous and ill at ease at a formal dance or party.
84. I have at one time or another in my life tried my hand at writing poetry.
85. I don't like to undertake any project unless I have a pretty good idea as to how it will turn out.

86. Most of the arguments or quarrels I get into are over matters of principle.
87. I like adventure stories better than romantic stories.
88. I do not like to see people carelessly dressed.
89. Once a week or oftener I feel suddenly hot all over, without apparent cause.
90. As long as a person votes every four years, he has done his duty as a citizen.
91. Sometimes I think of things too bad to talk about.
92. People often expect too much of me.
93. I would do almost anything on a dare.
94. With things going as they are, it's pretty hard to keep up hope of amounting to something.
95. The idea of doing research appeals to me.
96. I take a rather serious attitude toward ethical and moral issues.
97. I would like the job of a foreign correspondent for a newspaper.
98. People today have forgotten how to feel properly ashamed of themselves.
99. I cannot keep my mind on one thing.
100. I prefer a shower to a bathtub.
101. I must admit that I often do as little work as I can get by with.
102. I like to be the center of attention.
103. I like to listen to symphony orchestra concerts on the radio.
104. I would like to see a bullfight in Spain.
105. I am fascinated by fire.
106. The average person is not able to appreciate art and music very well.
107. I can be friendly with people who do things which I consider wrong.
108. I have no dread of going into a room by myself where other people have already gathered and are talking.
109. I get pretty discouraged sometimes.
110. The thought of being in an auto accident is very frightening to me.
111. When in a group of people I have thinking of the right things to talk.
112. I set a high standard for myself and others should do the same.
113. School teachers complain a lot about pay, but it seems to me that they get as much as they deserve.
114. At times I feel like picking a fist fight with someone.
115. Sometimes I have the same dream over and over.
116. It is annoying to listen to a lecturer who cannot seem to make up his mind about what he really believes.
117. I don't blame anyone for trying to get ahead; he can get in this world.
118. I believe we are made better by the struggles and hardships of life.
119. Planning one's activities in advance is likely to take most of the fun out of life.
120. I do not always tell the truth.
121. I was a slow learner in school.
122. I like poetry.
123. I think I am stricter about right and wrong than most people.
124. I am likely not to speak to people who speak to me.
125. There is something wrong with a person who can't take orders without getting angry or resentful.
126. I do not dread seeing a doctor about illness or injury.
127. I always try to consider the other fellow's feelings before I do something.
128. It takes a lot of argument to convince people of the truth.
129. I think I would like to drive a racing car.
130. Sometimes without any reason or rhyme, when things are going wrong I feel suddenly happy, "on top of the world."
131. One of my aims in life is to accomplish something that would make my mother proud of me.
132. I fall in and out of love rather easily.
133. I feel as good now as I ever have.
134. It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of thing.
135. I wake up fresh and rested most mornings.
136. Most people make friends because friends are likely to be useful to them.
137. I wish I were not bothered by thoughts about sex.
138. I seldom or never have dizzy spells.
139. It is all right to get around the law if you don't actually break it.
140. I enjoy hearing lectures on world affairs.
141. Parents are much too easy on their children nowadays.
142. Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it.
143. I like to be with a crowd who play jokes on one another.
144. I am somewhat afraid of the dark.
145. I have a tendency to give up easily when I meet difficult problems.
146. I would like to wear expensive clothes.
147. I certainly feel useless at times.
148. I believe women should have as much sexual freedom as men.
149. I consider a matter from every standpoint before I make a decision.
150. Criticism or scolding makes me very uncomfortable.
151. I have strange and peculiar thoughts.
152. I read at least ten books a year.
153. If I am not feeling well I am somewhat cross and grouchy.
154. I like tall women.
155. A person should adapt his ideas and his behavior to the group that happens to be with him at the time.
156. I hardly ever get excited or thrilled.
157. I have the wanderlust and am never happy unless I am roaming or traveling about.
158. I frequently notice my hand shakes when I try to do something.
159. I feel nervous if I have to meet a lot of people.
160. I would like to hear a great singer in an opera.
161. I am sometimes cross and grouchy without any good reason.
162. Every citizen should take the time to find out about national affairs, even if it means giving up some personal pleasures.
163. I like parties and socials.
164. My parents have often disapproved of my friends.
165. I do not mind taking orders and being told what to do.
166. In school I always looked far ahead in planning what courses to take.
167. I should like to belong to several clubs or lodges.
168. My home life was always happy.
169. Teachers often expect too much work from the students.
170. I often act on the spur of the moment without stopping to think.
171. I think I could do better than most of the present politicians if I were in office.
172. I do not have a great fear of snakes.
173. My way of doing things is apt to be misunderstood by others.
174. I never make judgments about people until I am sure of the facts.
175. I have had blank spells in which my activities were interrupted and I did not know what was going on around me.

176. I commonly wonder what hidden reason another person may have for doing something nice for me.
177. I am certainly lacking in self-confidence.
178. Most people are secretly pleased when someone else gets into trouble.
179. When I work on a committee I like to take charge of things.
180. My parents have generally let me make my own decisions.
181. I always tried to make the best school grades that I could.
182. I would rather go without something than ask for a favor.
183. Sometimes I feel as if I must injure either myself or someone else.
184. I have had more than my share of things to worry about.
185. I often do whatever makes me feel cheerful here and now, even at the cost of some distant goal.
186. I usually don't like to talk much unless I am with people I know very well.
187. I am inclined to take things hard.
188. I am quite often not in on the gossip and talk of the group I belong to.
189. In school my marks in deportment were quite regularly bad.
190. Only a fool would ever vote to increase his own taxes.
191. I can remember "playing sick" to get out of something.
192. When I meet a stranger I often think that he is better than I am.
193. I would be ashamed not to use my privilege of voting.
194. I like to keep people guessing what I'm going to do next.
195. The most important things to me are my duties to my job and to my fellowman.
196. I think I would like to fight in a boxing match sometime.
197. Once in a while I laugh at a dirty joke.
198. Before I do something I try to consider how my friends will react to it.
199. I would like to be a soldier.
200. In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well.
201. I have no patience with people who believe there is only one true religion.
202. If given the chance I would make a good leader of people.
203. When things go wrong I sometimes blame the other fellow.
204. I like to plan a home study schedule and then follow it.
205. I enjoy a race or game better when I beat on it.
206. I have often found people jealous of my good ideas, just because they had not thought of them first.
207. Sometimes at elections I vote for men about whom I know very little.
208. I like to go to parties and other affairs where there is lots of loud fun.
209. Most people are honest chiefly through fear of being caught.
210. I very much like hunting.
211. I have frequently found myself, when alone, pondering such abstract problems as freewill, evil, etc.
212. I have never been in trouble with the law.
213. It makes me angry when I hear of someone who has been wrongly prevented from voting.
214. In school I was sometimes sent to the principal for cutting up.
215. I would like to write a technical book.
216. At times I have worn myself out by undertaking too much.
217. I think I would like the work of a librarian.
218. I love to go to dances.
219. Most people inwardly dislike putting themselves out to help other people.
220. I feel uneasy indoors.
221. People have a real duty to take care of their aged parents, even if it means making some pretty big sacrifices.
222. I would like to belong to a discussion and study club.
223. I keep out of trouble at all costs.
224. I usually expect to succeed in things I do.
225. People pretend to care more about one another than they really do.
226. Most people worry too much about sex.
227. It is hard for me to find anything to talk about when I meet a new person.
228. I like to read about history.
229. I much prefer symmetry to asymmetry.
230. I would rather be a steady and dependable worker than a brilliant but unstable one.
231. I am apt to show off in some way if I get the chance.
232. Sometimes I feel that I am about to go to pieces.
233. A person does not need to worry about other people if only he looks after himself.
234. We ought to pay our elected officials better than we do.
235. I can honestly say that I do not really mind paying my taxes because I feel that's one of the things I can do for what I get from the community.
236. I am so touchy on some subjects that I can't talk about them.
237. The future is too uncertain for a person to make serious plans.
238. Sometimes I just can't seem to get going.
239. I like to talk before groups of people.
240. I would like to be a nurse.
241. The man who provides temptation by leaving valuable property unprotected is about as much to blame for its theft as the one who steals it.
242. I am a good mixer.
243. I am often bothered by useless thoughts which keep running through my mind.
244. If I were a reporter I would like very much to report news of the theater.
245. Most of the time I feel happy.
246. I like to plan out my activities in advance.
247. When a man is with a woman he is usually thinking about things related to her sex.
248. I must admit that I have a bad temper, once I get angry.
249. I like mechanics magazines.
250. I must admit I find it very hard to work under strict rules and regulations.
251. I like large, noisy parties.
252. I sometimes feel that I am a burden to others.
253. When prices are high you can't blame a person for getting all he can while the getting is good.
254. I have never deliberately told a lie.
255. Only a fool would try to change our American way of life.
256. I want to be an important person in the community.
257. I often feel as though I have done something wrong or wicked.
258. In school I found it very hard to talk before the class.
259. I usually feel that life is worthwhile.
260. I always try to do at least a little better than what is expected of me.
261. We ought to let Europe get out of its own mess; it made its bed, let it lie in it.
262. There have been a few times when I have been very mean to another person.
263. Lawbreakers are almost always caught and punished.
264. I would be very unhappy if I was not successful at something I had seriously started to do.

265. I dread the thought of an earthquake.
266. I think most people would lie to get ahead.
267. I am a better talker than a listener.
268. At times I have been very anxious to get away from my family.
269. I like science.
270. I often lose my temper.
- 271.** My parents were always very strict and stern with me.
272. I must admit I feel sort of scared when I move to a strange place.
273. I am bothered by people outside, on street-cars, in stores, etc., watching me.
274. I'm pretty sure I know how we can settle the international problems we face today.
275. Sometimes I rather enjoy going against the rules and doing things I'm not supposed to.
276. I have very few quarrels with members of my family.
277. I have no fear of water.
278. If I get too much change in a store, I always give it back.
279. I often get disgusted with myself.
280. I enjoy many different kinds of play and recreation.
281. Society owes a lot more to the businessman and the manufacturer than it does to the artist and the professor.
282. A large number of people are guilty of bad sexual conduct.
283. I like to read about science.
284. It is hard for me to act natural when I am with new people.
285. I refuse to play some games because I am not good at them.
- 286.** I have never done anything dangerous for the thrill of it.
287. I think I would like to belong to a singing club.
288. As a youngster I was suspended from school one or more times for cutting up.

289. There have been times when I have ried a lot about something that was really important.
290. I have never been in trouble because of sex behavior.
291. I think I would like to belong to a motorcycle club.
292. I used to like it very much when one of papers was read to the class in school.
293. Every now and then I get into a bad mood and no one can do anything to please me.
294. I feel that I have often been punished without cause.
295. I would be willing to give money in order to right a wrong, even though it was not mixed up in it in the first place.
296. I would like to be an actor on the stage in the movies.
297. At times I have a strong urge to do something harmful or shocking.
298. I often get feelings like crawling, burning, tingling, or "going to sleep" in different parts of my body.
299. I don't seem to care what happens to me.
300. Police cars should be especially marked so that you can always see them coming.
- 301.** I am afraid to be alone in the dark.
302. I have often gone against my parents' wishes.
303. We should cut down on our use of money, so that there will be plenty for the people fifty or a hundred years from now.
304. When the community makes a decision, it is up to a person to help carry it out, even if he had been against it.
305. I often wish people would be more careful about things.
306. I have nightmares every few nights.
307. If I am driving a car, I try to keep away from passing me.
308. I have a great deal of stomach trouble.

309. I have been afraid of things or people that I knew could not hurt me.
310. I would rather have people dislike me than look down on me.
311. I cannot do anything well.
312. Any man who is able and willing to work hard has a good chance of succeeding.
313. I hardly ever feel pain in the back of the neck.
314. I must admit I try to see what others think before I take a stand.
315. People should not have to pay taxes for the schools if they do not have children.
- 316.** My parents wanted me to "make good" in the world.
317. I often think about how I look and what impression I am making upon others.
318. When I was a child I didn't care to be a member of a crowd or gang.
319. In a group, I usually take the responsibility for getting people introduced.
320. I would be willing to describe myself as a pretty "strong" personality.
321. I almost never go to sleep.
322. I do not like to loan my things to people who are careless in the way they take care of them.
323. I have never done any heavy drinking.
324. Voting is nothing but a nuisance.
325. When I am feeling very happy and active, someone who is blue or low will spoil it all.
326. It is annoying to listen to a lecturer who cannot seem to make up his mind as to what he really believes.
327. I find it easy to "drop" or "break with" a friend.
328. I find that a well-ordered mode of life with regular hours is congenial to my temperament.
329. It is hard for me to sympathize with someone who is always doubting and unsure about things.

330. Everything tastes the same.
- 331.** I often start things I never finish.
332. I could be perfectly happy without a single friend.
333. Education is more important than most people think.
334. I get nervous when I have to ask someone for a job.
335. There are times when I act like a coward.
336. Sometimes I used to feel that I would like to leave home.
337. Much of the time my head seems to hurt all over.
338. I never worry about my looks.
339. I have been in trouble one or more times because of my sex behavior.
340. Our thinking would be a lot better off if we would just forget about words like "probably," "approximately," and "perhaps."
341. My people treat me more like a child than a grown-up.
342. Some people exaggerate their troubles in order to get sympathy.
343. In school most teachers treated me fairly and honestly.
344. I am made nervous by certain animals.
345. I go out of my way to meet trouble rather than try to escape it.
- 346.** I must admit I am a pretty fair talker.
347. I never make judgments about people until I am sure of the facts.
348. I usually try to do what is expected of me, and to avoid criticism.
349. If a person is clever enough to cheat someone out of a large sum of money, he ought to be allowed to keep it.
350. A person should not be expected to do anything for his community unless he is paid for it.
351. Some of my family have habits that bother and annoy me very much.

352. I must admit I have no great desire to learn new things.
353. No one seems to understand me.
354. A strong person will be able to make up his mind even on the most difficult questions.
355. I have strong political opinions.
356. I seldom worry about my health.
357. For most questions there is just one right answer, once a person is able to get all the facts.
358. I dream frequently about things that are best kept to myself.
359. I think I am usually a leader in my group.
360. It is impossible for an honest man to get ahead in the world.
361. I like to have a place for everything and everything in its place.
362. I have never seen a vision.
363. I don't like to work on a problem unless there is the possibility of coming out with a clear-cut and unambiguous answer.
364. It bothers me when something unexpected interrupts my daily routine.
365. The future seems hopeless to me.
366. I never seem to get hungry.
367. My home life was always very pleasant.
368. I have had no difficulty starting or holding my urine.
369. I seem to do things that I regret more often than other people do.
370. Disobedience to any government is never justified.
371. I would rather be a steady and dependable worker than a brilliant but unstable one.
372. I have reason for feeling jealous of one or more members of my family.
373. My table manners are not quite as good at home as when I am out in company.
374. I would never go out of my way to help another person if it meant giving up some personal pleasure.
375. There are certain people whom I dislike much that I am inwardly pleased when they are catching it for something they have done.
376. I enjoy planning things, and deciding what each person should do.
377. Most of the arguments or quarrels I get into are over matters of principle.
378. I doubt if anyone is really happy.
379. I would rather not have very much responsibility for other people.
380. I am known as a hard and steady worker.
381. My mouth feels dry almost all the time.
382. Success is a matter of will power.
383. I usually have to stop and think before I act even in trifling matters.
384. Most people would be better off if they never went to school at all.
385. It is pretty easy for people to win arguments with me.
386. I know who is responsible for most of my troubles.
387. I don't like things to be uncertain and unpredictable.
388. When I am cornered I tell that portion of the truth which is not likely to hurt me.
389. I get pretty discouraged with the law when a smart lawyer gets a criminal free.
390. I have not lived the right kind of life.
391. I am quite a fast reader.
392. I daydream very little.
393. I have used alcohol excessively.
394. Even when I have gotten into trouble I am usually trying to do the right thing.
395. It is very important to me to have enough friends and social life.
396. I sometimes wanted to run away from home.
397. Once I have my mind made up I seldom change it.
398. Life usually hands me a pretty raw deal.
399. At times I have been so entertained by the cleverness of a crook that I have hoped he would get by with it.
400. I think I am stricter about right and wrong than most people.
401. Most young people get too much education.
402. I have had attacks in which I could not control my movements or speech, but in which I knew what was going on around me.
403. I have a natural talent for influencing people.
404. I am in favor of a very strict enforcement of all laws, no matter what the consequences.
405. People often talk about me behind my back.
406. I have one or more bad habits which are so strong that it is no use fighting against them.
407. I have had no difficulty in starting or holding my bowel movement.
408. I always see to it that my work is carefully planned and organized.
409. I would never play cards (poker) with a stranger.
410. I regard the right to speak my mind as very important.
411. I am bothered by acid stomach several times a week.
412. I like to give orders and get things moving.
413. I get all the sympathy I should.
414. I do not read every editorial in the newspaper every day.
415. I have felt embarrassed over the type of work that one or more members of my family have done.
416. I don't think I'm quite as happy as others seem to be.
417. Any job is all right with me, so long as it pays well.
418. I am embarrassed with people I do not know well.
419. It often seems that my life has no meaning.
420. I used to steal sometimes when I was a youngster.
421. I don't really care whether people like me or dislike me.
422. I feel like giving up quickly when things go wrong.
423. If people had not had it in for me I would have been much more successful.
424. The one to whom I was most attached and whom I most admired as a child was a woman (mother, sister, aunt, or other woman).
425. I have often felt guilty because I have pretended to feel more sorry about something than I really was.
426. There have been times when I have been very angry.
427. There are a few people who just cannot be trusted.
428. My home as a child was less peaceful and quiet than those of most other people.
429. Even the idea of giving a talk in public makes me afraid.
430. The things some of my family have done have frightened me.
431. As a youngster in school I used to give the teachers lots of trouble.
432. I am not afraid of picking up a disease or germs from doorknobs.
433. It is more important that a father be kind than that he be successful.
434. My skin seems to be unusually sensitive to touch.
435. If the pay was right I would like to travel with a circus or carnival.
436. I never cared much for school.
437. I am troubled by attacks of nausea and vomiting.
438. I would have been more successful if people had given me a fair chance.
439. The members of my family were always very close to each other.

440. There are times when I have been discouraged.
441. I have often been frightened in the middle of the night.
442. The trouble with many people is that they don't take things seriously enough.
443. I'm not the type to be a political leader.
444. My parents never really understood me.
445. I would fight if someone tried to take my rights away.
446. I must admit that people sometimes disappoint me.
447. If I saw some children hurting another child, I am sure I would try to make them stop.
448. People seem naturally to turn to me when decisions have to be made.
449. Almost every day something happens to frighten me.
450. I get sort of annoyed with writers who go out of their way to use strange and unusual words.
- 451.** I set a high standard for myself and I feel others should do the same.
452. I dislike to have to talk in front of a group of people.
453. I work under a great deal of tension.
454. My family has objected to the kind of work I do, or plan to do.
455. There seems to be a lump in my throat much of the time.
456. I have more trouble concentrating than others seem to have.
457. A person is better off if he doesn't trust anyone.
458. People who seem unsure and uncertain about things make me feel uncomfortable.
459. My sleep is fitful and disturbed.
460. A strong person doesn't show his emotions and feelings.
461. It seems that people used to have more than they do now.
462. Even though I am sure I am in the right, usually give in because it is foolish to cause trouble.
463. It is hard for me just to sit still and relax.
464. From time to time I like to get completely away from work and anything that reminds me of it.
465. I must admit that I am a high-strung person.
- 466.** I am a very ticklish person.
467. At times I think I am no good at all.
468. I like to eat my meals quickly and spend a lot of time at the table visiting and talking.
469. I must admit that it makes me angry when other people interfere with my daily activity.
470. If a person doesn't get a few lucky breaks in life it just means that he hasn't been keeping his eyes open.
471. I sometimes feel that I do not deserve good a life as I have.
472. I feel that I would be a much better person if I could gain more understanding of myself.
473. I can't really enjoy a rest or vacation when I have earned it by some hard work.
474. I sometimes tease animals.
475. I have a good appetite.
476. I had my own way as a child.
477. I get tired more easily than other people seem to.
478. I would be uncomfortable in anything other than fairly conventional dress.
479. I sweat very easily even on cool days.
480. I must admit it would bother me to put a worm on a fish hook.

The Adjective Check List

by

HARRISON G. GOUGH, Ph.D.

University of California (Berkeley)

Name Age Sex

Date Other

DIRECTIONS: This booklet contains a list of adjectives. Please read them quickly and put an **X** in the box beside each one you would consider to be self-descriptive. Do not worry about duplications, contradictions, and so forth. Work quickly and do not spend too much time on any one adjective. Try to be frank, and check those adjectives which describe you as you really are, not as you would like to be.



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APPROVAL SHEET

The dissertation submitted by Walter P. Knake, Jr. has been read and approved by members of the Department of Psychology.

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

8-13-69
Date

B. Walker
Signature of Adviser